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ABSTRACT

This statewide revised Standard Course of Study, mandated by North Carolina's Elementary and Secondary School Reform Act of 1984, provides a detailed, integrated curriculum plan for all subjects at all grade levels. An initial section provides an introduction ("Notes") to the users of the "North Carolina Competency-Based Curriculum," a separate document produced in loose-leaf form. (These publications are related to "Basic Education Program for North Carolina's Public Schools," published in October 1984.) The Standard Course of Study explains the philosophy and rationale underlying this curriculum, explains and outlines the theoretical taxonomy of thinking skills used in designing the plan, describes provisions for exceptional children, and provides guidelines for using the curriculum. The bulk of the document describes in detail the curriculum in the following subject areas: (1) performing and visual arts; (2) communication skills; (3) guidance; (4) healthful living, subdivided into health, physical education, and safety education; (5) library and media skills; (6) mathematics; (7) science; (8) second language studies; (9) social studies; and (10) vocational education, subdivided into prevocational education and seven subject areas. The general format of description is as follows: several paragraphs survey the purposes and components of the subject; the overall course of study is described graphically and verbally; general learning outcomes are outlined; and competency goals and objectives are outlined grade by grade. Appendixes present the curriculum's statutory basis as well as related policies and miscellaneous program information. (MCG)

NORTH CAROLINA
STANDARD COURSE OF STUDY
and Introduction to the Competency-Based Curriculum

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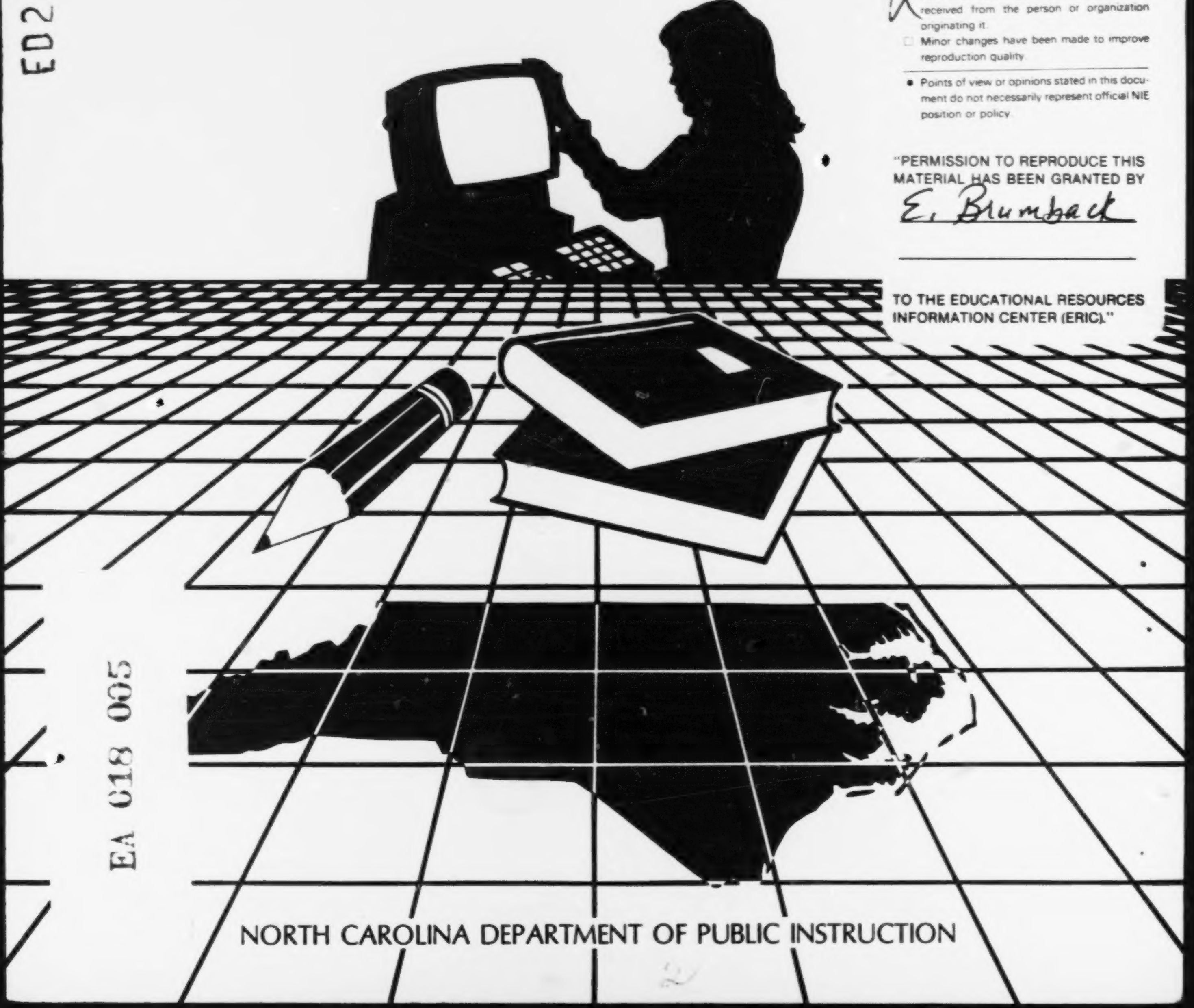

EA 018 005

NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION

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NORTH CAROLINA STANDARD COURSE OF STUDY

and Introduction to the Competency-Based Curriculum

Instructional Services
North Carolina Department of Public Instruction
State Board of Education

Raleigh, North Carolina
1985

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Foreword

As a result of the Elementary and Secondary School Reform Act of 1984 and the appropriation which accompanied this act, the North Carolina State Department of Public Instruction engaged in an extensive audit and revision of curriculum throughout the summer and fall of 1984. The products of this work, the North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum, provide a detailed, integrated basic course of study for all subjects at all grade levels.

The North Carolina General Assembly has also made a commitment to the development of a basic education program. This program includes the staffing and material support needed for the full implementation of the North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum in all public schools throughout the State. The financial support of the General Assembly and the work of educators throughout the State in developing the competency-based curriculum are important contributions to our continuing efforts to provide a quality education for every child residing in North Carolina.

A. Craig Phillips
State Superintendent of Public Instruction

Acknowledgements

The Instructional Services Area of the Department of Public Instruction acknowledges with gratitude the outstanding cooperation and assistance we have received from individuals and groups throughout the State of North Carolina. Without such cooperation, the development and printing of the North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum would not have been possible.

We wish to express a special thanks to:

- the North Carolina General Assembly for providing the funds to make this important work possible,
- more than 8000 local educators who participated in the writing of the documents and in reacting to early drafts,
- almost 300 persons from institutions of higher education who advised the staff and assisted in the development of the curriculum,
- Raleigh-based and regional staff in the Divisions of Arts Education, Communication Skills, Computer Services, Exceptional Children, Healthful Living, School Media Programs, Mathematics, Science, Social Studies, Services, and Vocational Education. These Public Instruction staff members carried the primary responsibility for planning, writing, and editing the curriculum.
- the Controller's Office in the Department of Education for excellent assistance in designing a computer program for storing and printing the Standard Course of Study and the Competency-Based Curriculum,
- the Division of School-Community Relations for technical assistance in the publication of the documents,
- all areas of the Department of Public Instruction for their encouragement and invaluable assistance in numerous ways,
- Kay Barbour and Janice Royster who word-processed the entire 8000 pages, and
- especially Dr. Barbara Holland Chapman who coordinated the development of the Standard Course of Study and the Competency-Based Curriculum. Her untiring efforts have contributed significantly to the quality of these documents.

The involvement of the entire education community in the writing of the curriculum truly makes it a North Carolina curriculum of which the State can be justifiably proud. We look forward in the coming years to working with all of you in revising and improving the Competency-Based Curriculum in order that it will continue to meet the needs of the children of North Carolina.

Joseph B. Webb

Joseph B. Webb
Assistant State Superintendent
Instructional Services

BACKGROUND AND OVERVIEW

Introduction

Immediately following the passage of the Elementary and Secondary Reform Act in June of 1984, the area of Instructional Services within the North Carolina State Department of Public Instruction began a revision of the North Carolina Standard Course of Study and the development of the North Carolina Competency-Based Curriculum. These efforts represent a significant part of the development of a basic education program for North Carolina's Public Schools.

Three publications hold the results of our efforts to define a basic education program for the State: The Basic Education Program for North Carolina's Public Schools, North Carolina Standard Course of Study, and North Carolina Competency-Based Curriculum. The Basic Education Program for North Carolina's Public Schools outlines the curriculum, programs not confined to subject areas, general standards, material support, and staffing which should be provided in all schools throughout the State. The North Carolina Standard Course of Study, adopted by the State Board of Education, provides an overview of the basic curriculum which should be made available to every child in the public schools of our State. It includes the subject or skills areas of arts education, communication skills, guidance, healthful living, library/media skills, mathematics, science, second language studies, social studies, and vocational education as well as the philosophy and rationale underlying the curriculum and considerations which should be made in developing thinking skills and providing for the needs of exceptional children. The North Carolina Competency-Based Curriculum provides recommended goals and objectives and suggested measures for each subject or skills area.

The first step taken in auditing and refining the curriculum in each subject or skills area was to review and synthesize the reports of curriculum review committees and the work contained in two earlier publications (Course of Study for Elementary and Secondary Schools K-12 and Competency Goals and Performance Indicators). The next step was to involve educators from local education agencies and institutions of higher education in working with the North Carolina State Department of Public Instruction staff to expand and refine the curriculum. Thousands of persons throughout the State have been involved in the development of the North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum.

Three important points should be kept in mind when reviewing these documents. First, while the curriculum represents the standard course of study which should be available to all children in North Carolina Public schools, many public schools in the State presently offer an even more comprehensive curriculum. Second, the standard course of study includes the curriculum that should be made available to every child, not what every child is actually required to take. Required subjects or courses are outlined in the appendices.

Third, the North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum will never actually be completed. Several steps have been taken to insure that the curriculum may be constantly updated: the documents have been entered on an IBM 5520 computer word-processing program for ease of revision and updating; the competency-based curriculum has been produced in loose-leaf form so that revised or additional pages may easily be added; and included in each document is the name of a contact person within the State Department of Public Instruction to whom staff in local education agencies or others may send suggestions for additions or revisions (Appendix I). As with any viable curriculum, these documents must be constantly open to review, expansion, and revision in order that they continue to meet the needs of the children of the State of North Carolina.

Philosophy and Rationale

The philosophy and rationale underlying the North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum imply a context in which the curriculum will be implemented. What follows are definitions of the purposes for which the curriculum was developed and the principles incorporated into its development as well as descriptions of who will implement it and where it will be successfully implemented.

Purposes and Principles

The primary purposes of the North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum are (1) to help students become responsible, productive citizens and (2) to help students achieve a sense of personal fulfillment. It is clear that there are competencies which a student must develop in order to meet both of these purposes.

Students must develop the specific competencies needed to gain employment or continue their education. These competencies include critical thinking skills, skills with media and technology, and the basic content knowledge provided within a core curriculum (arts education, communication skills, healthful living, mathematics, science, second language studies, social studies, and vocational education).

Students must develop the skills and attitudes necessary to cope with contemporary society. Among these are a positive attitude toward oneself, a sense of independence and responsibility for oneself, an understanding of oneself and one's own culture, a positive attitude toward others including those who come from different cultures, a respect for the rights of others, a sensitivity to the needs and feelings of others, a sense of responsibility to others, a willingness to cooperate with others in working toward a common goal, and the ability to understand and cope with a constantly changing society.

In order to help students become responsible, productive citizens who have a sense of personal fulfillment, commonly accepted principles of learning have been incorporated into the North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum. One of these principles is the importance of integrating the curriculum--of emphasizing the understanding of concepts and processes over the mere acquisition of isolated facts. Stressing the mastery of integrated knowledge helps students to move from what is known to an understanding of the unknown, to see relationships and patterns and begin to make generalizations, to understand the interrelatedness of the subject areas and skills areas, and to succeed in learning. An integrated curriculum helps students learn how to learn.

Another principle considered in the development of the North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum is that learners are more likely to attempt those tasks at which they feel they can succeed and which are relevant to their lives. If students are to be successful in school and if they are to pursue lifelong learning, they must see learning as worthwhile. The North Carolina Competency-Based Curriculum is, therefore, a program of continuous learning based upon the individual student's needs, interests, and stages of development. The curriculum provides opportunities for the student to develop self-expression, to learn to communicate effectively, to maintain and develop both physical and emotional health, to choose among curriculum electives, and to become an active participant in the learning process. The importance of personalizing the curriculum to help each student reach her/his maximum potential is stressed.

Effective Teachers

It is the classroom teacher at each grade level or in each subject area who has the most direct influence on the implementation of the North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum. The ultimate task of integrating the curriculum must be performed by the classroom teacher through preparation for instruction and presentation of content. Student success in learning is assured when teachers use the information gained through monitoring and evaluation to determine appropriate instructional tasks and to provide appropriate feedback to students. What the teacher presents and how the teacher presents it determines whether students feel the task is relevant to their lives. The teacher's efficient management of instructional time and student behavior are also important to the successful implementation of the curriculum in each classroom.

Effective Schools

Several common characteristics will be present in the schools which most effectively implement the North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum. These characteristics include strong instructional and administrative leadership by the principal of the school, dedicated and qualified teachers, an emphasis on curriculum and instruction, a positive school climate, ongoing evaluation based on student achievement, and good home/school relations. Strong instructional and administrative leadership by the principal means that the principal functions as the instructional leader, supports instructional effectiveness by the way in which the school is managed, and clearly communicates the school's mission to staff, students, and parents. Dedicated and qualified teachers care about their students, understand and support school-wide goals and procedures, work as a team, exhibit positive morale and enthusiasm for their work, and demonstrate their good training through application of the skills involved in quality teaching. An emphasis on curriculum and instruction includes clearly stated school-wide goals and objectives, structured staff development based on the school's goals, curriculum continuity (alignment among school-wide goals, instructional approaches, materials used, and the assessment of students' needs, abilities, and interests), and a high percentage of student time-on-task. Elements of a positive school climate are a safe and orderly environment, a perceptible feeling of pride and school spirit in all that the school does, the communication of high academic and social expectations to students, and opportunities for student responsibility and involvement. Ongoing evaluation based on student achievement begins with early identification of students' needs, abilities, and interests, includes frequent monitoring of student progress in multiple ways (teacher observation, classroom activities, homework, teacher-made tests, mastery skills checklists, criterion-referenced tests), and results in appropriate instructional prescriptions to improve individual student performance and the school-wide instructional program. Good home/school relations are the outgrowth of effective, positive communication between the school and the home. This includes encouraging parents to help their children at home, making them feel they are appreciated by the school staff, and letting them know they are welcome in the school and have a part to play in school affairs. Good home/school relations increase parents' support of the school's instructional goals and disciplinary policies.

The characteristics described above will be found in the elementary middle/junior high, and high schools which most effectively implement the North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum. However, in each of these schools consideration must be given to the unique developmental needs--intellectual, physical, social, and emotional--of the students served. For example, the need of young children for concrete, hands-on experiences; the need of middle school children for transitional experiences in curriculum choices, scheduling, and counseling; and the need of high school students for the variety of curriculum choices provided by the comprehensive high school.

The North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum represent a comprehensive, integrated course of study; however, no document by itself has ever made the ultimate difference in the quality of education which children receive. Principals who function as instructional leaders and teachers who make use of their most effective teaching skills will appropriately implement the competency-based curriculum and thus insure that the children of North Carolina receive a quality education.

Thinking Skills

In order to become productive, responsible citizens and to achieve a sense of personal fulfillment, students must develop the ability to think. Thinking skills should be developed and reinforced throughout the curriculum and during every activity of the school day. It is also important that students be helped to apply these skills to "real life" situations outside the school.

The most frequently used system for classifying thinking skills is Bloom's (1956) Taxonomy. This system, with adaptations made by Sanders (1966) and Soar et al. (1969), was used in the integration of thinking skills throughout the North Carolina Competency-Based Curriculum. These skills fall into seven broad categories--memory, translation, interpretation, application, analysis, synthesis, and evaluation.

The most basic thinking skills are memory and translation. Memory involves the ability to remember specific pieces of information or facts such as names, dates, events, and rules. Translation requires the student to remember specifics and to understand or express them in her/his own terms. One example of a translation skill is the student's ability to restate a classroom rule in her/his own words. Another example is the ability to read the mathematical symbol "+" as "plus".

Remembering isolated bits of information or even restating that information in one's own words does not necessarily require reasoning on the part of the student. Higher-level thinking skills are defined as those processes which require thinking or reasoning above the levels of memory or translation--interpretation, application, analysis, synthesis, and evaluation.

Students begin to demonstrate their ability to reason through interpreting information, applying what is learned in one situation to a new situation, and analyzing information. Ways in which a student might demonstrate the ability to interpret information are to list the similarities and differences between two or more objects or to tell why a particular classroom rule was established. A student demonstrates a degree of ability in the category of application when s/he is able to explain how the principle of representative government at the state and federal levels may apply to the election of officers to the student council. A student who reads a newspaper editorial and is able to distinguish fact from opinion, point out unstated assumptions, and recognize bias is demonstrating skills of analysis.

When students apply skills of analysis, they are taking apart a whole. When students apply synthesis skills, they are creating a whole that is unique or new to them. Synthesis is usually equated with creativity. Composing a song, building a model house, or formulating a hypothesis during a science experiment are examples of synthesis activities.

Evaluation is distinct from opinion in that evaluation is the conscious making of judgments based on evidence or criteria. Opinion is usually formed from an emotional or affective base. Students serving as jurors during a simulated trial are using evaluation skills or making judgments based on evidence. Students critiquing one another's writing based on established elements of style are using evaluation skills or making judgments based on criteria.

To insure that students develop higher-level thinking skills they should be guided in the use of these skills in each subject area at each grade level and in their application to "real life" situations. When developing lesson plans, teachers should prepare tasks and questions at a variety of cognitive levels. However, strict adherence to previously prepared questions may inhibit rather than enhance a class discussion. Furthermore, it is often difficult to think of appropriately worded higher-level questions in the midst of a good classroom discussion. The following simple strategies will lead to the asking of higher-level questions and the giving of higher-level responses:

1. Before starting an activity, explain to the learner what you are going to do.
2. Before starting an activity, give the learner time to familiarize her/himself with the materials.
3. Ask questions which require multiple word answers.
   (e.g., "Why did he choose that path?")
4. Ask questions which have more than one correct answer.
   (e.g., "What things make people happy?")
5. Encourage the learner to enlarge upon her/his answer.
   (e.g., "Tell us more about that.")
6. Get the learner to make judgments on the basis of evidence rather than by guessing.
   (e.g., "You said . . . Read the line in the book that made you think that.")
7. Give the learner time to think about the problem; don't be too quick to help.
   (e.g., Wait at least five seconds before prompting or asking another question.)
8. Get the learner to ask questions.
   (e.g., "If the astronaut were in our classroom, what questions would you ask her?")
9. Praise the learner when s/he does well or takes small steps in the right direction.
10. Let the learner know when her/his answer or work is wrong, but do so in a positive or neutral manner. (Desirable Teaching Behavior Task Force, 1976)

The following are examples of two levels of activities (K-1 and above K-1) within the seven categories of thinking skills and two categories of questions or statements (affectivity and procedure) outside the seven categories of thinking skills:

Florida Taxonomy of Cognitive Behavior--K-1 Form (Soar et al., 1969)

1. Memory--items at this level are intended to represent no activity other than rote memory. The pupil is expected to give back an idea in the same form it was given, without changing the nature of the idea or the form in which it was expressed.

    a. repeats from memory
    b. repeats other
    c. repeats in sequence
    d. choral response
    e. spells
    f. gives/receives information
    g. seeks information

2. Translation--the intent of this category is to identify pupil activities involved in changing the form in which an idea is expressed, but not in changing or manipulating the idea itself.

    a. sounds letters
    b. names pictures, objects, colors, letters
    c. copies letter, number, work (learned)
    d. gives/follows directions
    e. describes situation, event
    f. reports experience (2+ thoughts)
    g. describes situation, event
    h. recognizes word (sight words)
    i. translates one language into another or vice versa (e.g., math symbols into words or Spanish into English)
    j. asks/gives permission
    k. puts into own words

3. Interpretation--the activities in this category are those of making comparisons, identifying similarities or differences, identifying relatedness, or carrying out a process in which the child has previously been instructed, when told that the process is appropriate.

    a. sounds out word
    b. classifies (1 attribute)
    c. counts
    d. adds/subtracts
    e. uses units, tens
    f. compares letters, numbers
    g. copies letters(s), number(s)--learning
    h. gives class name (vehicle, etc.)
    i. identifies similarities, differences
    j. asks/gives reason (opinion)
    k. names sensation
    l. performs learned task or process
    m. relates terms (e.g., 1/first, little/small, purple/violet/lavender)
    n. makes comparisons
    o. describes what may be seen to be happening in a picture

4. Application--one of the central aspects of application is that the student is able to select from past learning that which is appropriate for the current situation, and apply it. In interpretation a process was carried out when specified, but here the pupil must decide her/himself what process should be applied. Organization and the interrelationships between two or more ideas are central.

   a. classification (2+ attributes)
   b. directs learning game
   c. creates arithmetic problem
   d. writes/types sentence
   e. asks/tells who, what, or where
   f. seriates (alphabetizes)
   g. applies previous learning to new situation
   h. reads (thought unit)
   i. selects and carries out process

5. Analysis--the central elements in this category are those of inferring causation, motivation, or feelings from information given about the setting and the behavior of the people involved, or of identifying information which supports a conclusion, or establishing the accuracy of a process. The selection and use of relevant supporting data is the central process.

   a. verifies equation balance
   b. infers feeling or motive
   c. infers causality (tells why)
   d. cites evidence for conclusions

6. Synthesis--the central idea of the synthesis category is that the child organize ideas in a way that is new to her/him, or projects probable consequences of a given behavior, or formulates a plan or set of rules to deal with anticipated difficulties, or produces something which is new to her/him.

   a. elaborates on picture or story
   b. proposes plan or rule
   c. play-acts
   d. makes up story
   e. makes fantasied object (e.g., sand or clay)
   f. makes common object (e.g., sand or clay)
   g. draws/colors common object
   h. draws/colors fantasied object
   i. makes predictions based on available facts

7. Evaluation--the central concept of evaluation is that there must exist a set of standards or criteria against which behavior or some sort of product is compared.

   a. compares with criteria or rule
   b. compares with plan

Florida Taxonomy of Cognitive Behavior (Brown et al., 1968)

1. Knowledge (memory)

1.1 Knowledge of Specifics--requires the memorization of information or knowledge which can be isolated or remembered separately, the smallest meaningful bits.

a. reads
b. spells
c. identifies something by name
d. defines meaning of term
e. gives a specific fact
f. tells about an event

1.2 Knowledge of Ways & Means of Dealing with Specifics--requires knowledge about the manner in which specific information is handled--the ways of organizing, working, and evaluating ideas and phenomena which form the connecting links between specifics. It does not require the learner to deal actually with the specifics her/himself, but rather to know of their existence and possible use. Thus, s/he may be expected to state a previously encountered principle or generalization, but not to develop one. The items which belong to this category refer to processes rather than products of processes; they usually represent higher abstractions than the items of the preceding category.

a. recognizes symbol
b. cites rule
c. gives chronological sequence
d. gives steps of process, describes method
e. cites trend
f. names classification system or standard
g. names what fits given system or standard

1.3 Knowledge of Universals & Abstractions--deals with the highest of abstractions at the memory level. In order to evidence this behavior the individual must know major generalizations, their interrelations, and patterns into which information can be organized and structured. These items reflect the major concepts which comprise the framework of a discipline or major area of knowledge. The four items in this category are descriptions of behavior which would identify or verbalize a major concept.

a. states generalized concept or idea
b. states a principle, law, or theory
c. tells about organization or structure
d. recalls name of principle, law, or theory

2. Translation--is dependent upon possession of relevant knowledge. The task is to convert communication into known terms; it requires the understanding of the literal message in the communication. Communication is used here in its broadest sense; it could be a demonstration, a field trip, a musical work, a verbal message, or be demonstrated in pictorial or symbolic form.

a. restates in own words or briefer terms
b. gives concrete example of an abstract idea
c. verbalizes from a graphic representation
d. translates verbalization into graphic form
e. translates figurative statement to literal statement or vice versa
f. translates foreign language into English or vice versa

3. Interpretation--individual not only identifies and comprehends ideas, as in translation, but also understands their relationships. It goes beyond repetition and rephrasing the parts of a communication to determine the larger and more general ideas contained in it. Thus, comprehension may require reordering into a new configuration in the mind of a person, involving the determination of the relative importance of ideas and the interrelationships. However, the thinking is dependent upon what is given to the student--s/he is not expected to bring abstractions from other experiences into the situation.

a. gives reason (tells why)
b. shows similarities or differences
c. summarizes or concludes from observation of evidence
d. shows cause and effect relationship
e. gives analogy, simile, metaphor
f. performs a directed task or process

4. Application--individual must know an abstraction well enough to be able to demonstrate its use in a new situation. The task is to bring to bear upon given material or situation the appropriate information, generalizations or principles that are required to solve a problem. Application, as distinguished from comprehension, involves transfer of training. It is based on an individual's being able to apply previous learning to a new or novel situation without having to be shown how to use it. The problem itself is given.

a. applies previous learning to a new situation
b. applies principle to new situation
c. applies abstract knowledge in a practical situation
d. identifies, selects, and carries out process

5. Analysis--describes cognitive behavior in which there is an emphasis on the breakdown of material into its parts in order to detect the relationships of the parts and the way they are organized. The first four items at this level describe skills used in the identification or classification of the elements of the communication.

a. distinguishes fact from opinion
b. distinguishes fact from hypothesis
c. distinguishes conclusions from statements which support it
d. points out unstated assumption
e. shows interaction or relation of elements
f. points out particulars to justify conclusion
g. checks hypothesis with given information

  - h. distinguishes relevant from irrelevant information
  - i. detects error in thinking
  - j. infers purpose, point of view, thoughts, feelings
  - k. recognizes bias or propaganda

6. Synthesis (creativity)--represents cognitive activities in which the individual puts together elements and parts in order to form a whole in such a way as to constitute a pattern or structure that was not stated before. This entails recombining parts of earlier experiences in a new organization that is unique to the synthesizer. In analysis, the person takes apart a given whole; in synthesis s/he creates a whole.

  - a. reorganizes ideas, materials, processes
  - b. produces unique communication or divergent idea
  - c. produces a plan, proposed set of operations
  - d. designs an apparatus
  - e. designs a structure
  - f. devises scheme for classifying information
  - g. formulates hypothesis, intelligent guess
  - h. makes deductions from abstract symbols, propositions
  - i. draws inductive generalization from specifics

7. Evaluation--describes activities of conscious judgment making; involves use of criteria or standards to determine the worth or value of methods, materials, or ideas. Evaluations must be distinguished from opinions which are usually made from an emotional or affective base.

  - a. evaluates something from evidence
  - b. evaluates something from criteria

Noncognitive Categories of Questions/Statements or Tasks (Davis & Tinsley, 1967)

Affectivity--questions/statements or tasks which elicit feeling, emotion, or opinion without a standard of appraisal, e.g., "How does the story make you feel?" or "Wasn't that a good story!"

Procedure--questions/statements or tasks related to organization, behavior, or management, e.g., "Are you listening to me?" or "Please get ready for class to begin."

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Programs for Exceptional Children

Exceptional children are (1) learners who because of permanent or temporary mental, physical, or emotional handicaps need special education and are unable to have all their educational needs met in a regular class without special education or related services, or (2) learners who demonstrate or have the potential to demonstrate outstanding intellectual aptitude and specific academic ability and, in order to develop these abilities, may require differentiated educational services beyond those ordinarily provided by the regular school program. Classifications of exceptional children include those who are autistic, academically gifted, hearing impaired (deaf or hard of hearing), mentally handicapped (educable, trainable, or severely/profoundly), multi-handicapped, orthopedically impaired, other health impaired, pregnant, behaviorally/emotionally handicapped, specific learning disabled, speech/language impaired, and visually impaired (blind or partially-sighted).

The primary purpose of exceptional children programs is to insure that handicapped and gifted learners develop mentally, physically, and emotionally to the maximum extent possible through the provision of an appropriate, individualized education in the proper setting.

Curricula for most exceptional learners follow the curricula designed for learners in general education. However, modification of instructional programs, creative instructional approaches, individualized programming, and appropriate selection and use of curricula are necessary to meet the special needs of exceptional learners. In curricula, emphasis must be given to instruction in arts education, communication skills, healthful living, mathematics, library/media skills, science, social studies, and vocational education. Attention must be focused upon cognitive, affective, psychomotor, and vocational development within the curricular areas. The Individualized Education Program for the handicapped and the Group Education Program for the academically gifted, both of which are based upon a comprehensive assessment, are to state in writing the special curricular offerings to be provided to each exceptional learner.

The Individual Education Program for the handicapped requires objective criteria, evaluation procedures, and schedules for determining, on at least an annual basis, whether or not short-term instructional objectives have been achieved. The Group Education Program for the academically gifted requires annual goals and evaluation methods. All special education instruction provided to handicapped and academically gifted learners is to be individualized and designed to meet unique learning needs.

Learning outcomes--knowledge, skills, concepts, understandings, and attitudes--for the handicapped and the academically gifted will differ from learner to learner. For many exceptional learners, the same learning outcomes developed for learners in general education will be appropriate. Some exceptional learners will meet the learning outcomes at a different time and in a different manner than learners in general education. Some handicapped learners might not meet the learning outcomes in general education and will need a totally different curriculum.

The majority of handicapped and academically gifted learners spend a portion of their instructional day within general education, integrated into classes with non-handicapped and nonacademically gifted learners. General education teachers, as well as exceptional education teachers, must be familiar with curricula and capable of selecting appropriate curricular goals and objectives based upon the unique educational needs of each learner as determined by comprehensive assessment, and as stated in the Individualized Education Program for exceptional learners, emphasis needs to be placed on instructional techniques rather than differentiated or modified curricula.

While the general education curricula are appropriate for most exceptional learners, there are times when the teacher must vary the curricular content: some children are not ready for certain types of curricular content at the usual age; some disabilities prevent or make difficult participation in certain learning experiences; different levels of ability may limit or encourage participation in certain school subjects; and some learners spend less time in school. Curricular choice is determined by need.

Curricular goals must be oriented toward skills and application instead of general knowledge. The goals must include skills related to maintaining health, communicating ideas, achieving personal and social growth, handling money concerns, working with measurements, getting along in an expanding community, coping with the physical environment, maintaining a home, using leisure time, and career development.

The North Carolina Competency-Based Curriculum is to be maximized for exceptional learners. Teachers must be familiar with the curriculum, making judicial use of it in the instructional program for handicapped and academically gifted learners.

Notes on Using the North Carolina Competency-Based Curriculum

The North Carolina Standard Course of Study, adopted by the State Board of Education, provides an overview of the basic curriculum which should be made available to every child in the public schools of our State. It includes the subject or skills areas of arts education, communication skills, guidance, healthful living, library/media skills, mathematics, science, second language studies, social studies, and vocational education as well as the philosophy and rationale underlying the curriculum and considerations which should be made in developing thinking skills and providing for the needs of exceptional children. The North Carolina Competency-Based Curriculum provides recommended goals and objectives and suggested measures for each subject or skills area.

Definitions

Competency Goals: broad statements of general direction or purpose.

Objectives: specific statements of what the student will know or be able to do.

Measures: a variety of suggestions for ways in which the student may demonstrate s/he is able to meet the objective.

How to Read the Goals, Objectives, and Measures

Competency Goals have been written as complete sentences stating why the learner should be able to meet the stated objectives, e.g., "The learner will know causes and events of the settlement of the West."

For purposes of clarity and brevity Objectives have been written as phrases or clauses beginning with a verb, e.g., "Know the importance of railroads in the settlement of the West." These phrases or clauses would logically be preceded by "The learner will (know the importance of railroads in the settlement of the West)."

For purposes of clarity and brevity Measures have also been written as phrases or clauses beginning with a verb, e.g., "Describe the advantages of the railroad over horse-drawn wagon, river transportation, and other commonly used methods of transportation." These phrases or clauses would logically be preceded by "One way (or some ways) a student may demonstrate s/he is able to meet successfully the objective is to (describe the advantages of the railroad over horse-drawn wagon, river transportation, and other commonly used methods of transportation)."

Appendix E is an example of a page from the North Carolina Competency-Based Curriculum.

Student Placement

From kindergarten through eighth grade each skill or subject area has been divided into grade levels. This was done in order to make it easier for teachers to gain a general idea of what should be covered at each grade level. In order that instruction fit the individual needs of each student, it is most important that the classroom teacher use the activities in the Measures column to determine the appropriate placement for each child. For example, if a second-grade student is not able to complete successfully the Measures in the reading skills section at the second-grade level, Measures at the first-grade or kindergarten level should be administered. When the base level at which the child can perform successfully has been determined, instruction should begin with and proceed from that level of Competency Goals and Objectives.

The Measures column includes a variety of suggested means for assessing student performance including informal measurements (e.g., manipulatives, oral reports, role playing, projects, and some paper and pencil activities) and formal measurements (e.g., items for teacher-made tests, criterion referenced tests, and/or standardized tests). Some of the items in this column may be administered in whole-group or small-group situations; others should be given only to individual students. These items may be used for the purpose of pretesting to determine appropriate student placement, for monitoring ongoing student progress, and/or for post-testing to determine student learning.

It is apparent that in order for students to be placed appropriately for instruction (particularly in first through eighth grade), each teacher must have at least one, and preferably two or more, grade levels of the North Carolina Competency-Based Curriculum on each side of the grade s/he is teaching. It must be remembered that the higher the grade level the greater the span of students' needs and, therefore, the greater the need for a teacher to have a wider grade span of the curriculum available. An adequate grade span of the curriculum is also important for teachers of exceptional children at all grade levels.

Responsibility for Implementation

The North Carolina Standard Course of Study specifies which skills and subjects are to be taught at each grade level from kindergarten through grade twelve. The skills to be taught or developed at all grade levels are communication skills, library/media skills, thinking skills, and affective skills. The subjects to be taught from kindergarten through grade six are arts education, healthful living, mathematics, science, second language studies, and social studies. The same subjects, with the addition of vocational education, are to be taught in grades seven through twelve.

The North Carolina Competency-Based Curriculum provides recommendations for what should be taught in each skills or subject area from kindergarten through eighth grade and in each course from ninth through twelfth grade. Each teacher's primary responsibility is to teach the subject(s) or courses which s/he is specifically assigned, as well as to help students develop thinking and affective skills. However, each teacher also has a responsibility for appropriately integrating other skills (communication, library/media) and subjects (arts, healthful living, mathematics, science, second language studies, social studies, and vocational education) into the skills or subject areas which are her/his specific assignment.

Teachers in departmentalized schools at the middle/junior high or secondary levels have a responsibility for integrating curriculum in several ways. These include: (1) the integration of curriculum within their subject area in order to help students to make a smooth transition from one level to the next, e.g., from English I to English II, from Algebra I to Algebra II, from French II to French III; (2) the appropriate integration and development of those skills which are every teacher's responsibility (thinking and affective skills); and (3) whenever appropriate, the integration of other skills and subjects into their specifically assigned subject or skills area.

The North Carolina Competency-Based Curriculum serves as a resource guide for the integration of all skills and subjects in departmentalized situations. Teachers may look over the curriculum within the specific skills or subject area for which they are responsible in order to determine the overall scope and sequence. They may look at the outlines for thinking and affective skills in order to determine which of those skills have been integrated into their particular segments of the curriculum or to determine how they may integrate additional thinking and affective skills. Looking over other skills and subject areas will help teachers determine what should be appropriately integrated into their own areas. For example, while it is a primary responsibility of the high school English teacher to teach writing and speaking skills, the high school social studies teacher must be familiar with those skills and has a responsibility for reinforcing those skills in the written and oral work done in the social studies classes. Prior to beginning written and oral reports the social studies teacher should review the writing and speaking skills portions of the communications skills curriculum, using these as guidelines for instruction and the development of student assignments. Similar examples could be given with education teachers, mathematics and science teachers, or English and vocational education teachers.

Teachers in self-contained classrooms at the elementary, middle/junior high, or high school levels have the primary responsibility for integrating the curriculum in a variety of ways. These include: (1) integrating the curriculum within each skills or subject area in order to help students make a smooth transition from one grade level to the next; (2) integrating thinking skills and affective skills throughout all areas of the curriculum; (3) the integration of skills and subjects whenever possible though units of study;

(4) integrating skills and subjects introduced by teachers or specialists outside the homeroom into what is being taught within the homeroom; and (5) coordinating the efforts of teachers outside the homeroom (teachers of arts education, physical education, exceptional children, and library/media specialists, or guidance counselors) in order to supplement the homeroom curriculum. The North Carolina Competency-Based Curriculum serves as a guide for the integration of skills and subjects in self-contained situations as it does in departmentalized situations.

The principal shares in the responsibility for the successful implementation of the North Carolina Competency-Based Curriculum. The implementation and integration of the curriculum should be the focal point for decisions made by the principal in the role of instructional and administrative leader. Decisions made with respect to scheduling, disposition of student discipline, uninterrupted time for classroom instruction, and the distribution of materials and supplies may each serve to facilitate or frustrate the successful implementation and integration of the curriculum.

Staff within the area of Instructional Services at the North Carolina State Department of Public Instruction also share responsibility for the successful implementation of the North Carolina Competency-Based Curriculum. Staff from the Regional Education Centers and Raleigh are, of course, available to assist Local Education Agencies in the implementation of the curriculum.

Use of Textbooks

The North Carolina Standard Course of Study is the curriculum approved for the public schools of North Carolina. Textbooks supplement this curriculum. With reference to their appropriateness for use with the North Carolina Standard Course of Study, textbooks are reviewed and recommended by the Textbook Commission. The State Board of Education then adopts a list of textbooks from which school districts make individual selections. Appendix G is a description of this process. If textbooks are at variance with the curriculum, the North Carolina Standard Course of Study takes precedence.

Computer Access

The North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum (with the exception of mathematics grades 7-12) have been entered on the IBM 5520 computer at the State Department of Public Instruction. Each skills or subject area at each grade level has been entered as a separate document. This allows Local Education Agencies, Institutions of Higher Education, and others with access to the mainframe in Raleigh to call up and print out any portion of the curriculum, e.g., any skills or subject area across all grade levels, all skills and subjects for one particular grade level, one subject at one grade level, or the entire North Carolina Competency-Based Curriculum. Those with access to the mainframe will, therefore, have immediate access to any revisions or additions to the curriculum.

Activities and Resources

The development or cataloging of activities and resources to assist in the implementation of the North Carolina Competency-Based Curriculum is an ongoing activity of Instructional Services staff working with teachers and others in each of the Local Education Agencies. Concentrating this effort in the local school districts provides teachers the opportunity to become familiar with the curriculum. As activities and resources are developed for each skills or subject area, they will be made available for State-wide dissemination through the IBM mainframe.

Working Space

Working space has been left at the end of goals throughout the North Carolina Competency-Based Curriculum. This space has been provided so that teachers may write in additional objectives and measures and/or make notes regarding instruction, activities, and resources.

How to Make Suggestions for Additions or Revisions

As with any viable curriculum, the North Carolina Competency-Based Curriculum must be open to constant review, expansion, and revision in order that it continue to meet the needs of the children of this State. Anyone having suggestions for additions to or revisions of this curriculum may complete and submit the form in Appendix I, or may contact:

Joseph B. Webb
Assistant State Superintendent
for Instructional Services
Education Building
Raleigh, NC 27611

COURSE OF STUDY FOR SUBJECT AND SKILLS AREAS

Arts Education

ARTS EDUCATION

Arts education encompasses K-12 programs in dance, folk arts, music, theatre arts, and visual arts. Each arts area provides a scope and sequence which allows students opportunities to:

- develop the essential senses of sight, hearing, smell, taste, touch, and kinesthetics as intellectual, emotional, physical, creative, and expressive acts.
- explore freely the problem-recognition and problem-solving process which gives them the power to shape their own lives within an interdependent world.
- perceive and respond to arts experiences which sensitize them to the aesthetic qualities in their environment.
- acquire useful skills and techniques which enable them to develop their abilities to express themselves.
- become knowledgeable about the arts and to recognize the relationship of the arts to humanity.
- nurture an appreciation of the arts as a measure of human development throughout civilization.
- experience the arts as a natural part of everyday living including avocational and vocational possibilities.

Since the arts are channels through which feelings and beliefs are conveyed, study of the arts emphasizes the meaning and content of expression. Knowledge about the arts and the development of artistic skills are taught as a means to that end. The arts are most valid when they are creatively experienced or produced; therefore, a balance between structured and unstructured experiences is sought.

Arts are indivisible from life; therefore, the arts are indivisible from education. The arts are symbolic of the human condition and help us to understand ourselves. The arts stimulate learning, incite curiosity, build confidence, encourage divergent thinking, demand analysis, and foster the creative nature inherent in us all. To deny students access to the study of the arts is to deny them access to their full potential.

The North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum in the arts provide educators with a vehicle to ensure a comprehensive and well balanced course of study for students. What follows is a full description of each of the K-12 arts education programs. While each art form is a discipline dedicated to specific learning outcomes, the overall goals of arts education present a model for interdisciplinary instruction.

Although each program is designed for individual grade levels, it is important to remember that all students do not fit into neatly prescribed categories of learning. The most beneficial use of this document results when students are individually assessed and consequently presented with the appropriate instructional levels.

Because folk arts is not considered a separate course or subject area in the State-funded basic education program, it has not been included in the North Carolina Standard Course of Study. However, many schools now offer courses in folk arts, and it is an important resource for teachers of other content or skills areas. For these reasons it has been included in the North Carolina Competency-Based Curriculum.

DANCE EDUCATION

PURPOSE AND OVERVIEW

Long before children acquire word symbols for a spoken language, they communicate through movement. Movement is both functional, such as walking which gets us from one place to another, and expressive, such as gesturing which conveys meaning. Dance, in its simplest form, is expressive movement.

Dance education in the public schools provides students opportunities to actively involve themselves in dance as a creative art. The major goals of the dance education program K-12 allow students to:

- develop kinetic awareness.
- perceive and respond to dance experiences which sensitize them to their abilities to express themselves through dance.
- become knowledgeable about dance and to recognize the relationship of dance to the other arts and humanity.
- understand dance throughout history as one of the measures of human endeavor.
- recognize that dance is beneficial to their well-being and has both avocational and vocational possibilities.

The public school dance education program is based primarily on the principles of modern dance which embrace a variety of creative approaches. Dance for the early childhood years focuses on the exploration of the body as the dance instrument, movement as a mode of self-expression, and in communication and understanding. During the intermediate years, emphasis begun in grades K-3 is continued with a natural progression into more refined uses of time, space, and energy. In grades 7 and 8, more emphasis is placed on technique.

The cognitive and aesthetic processes are equally as important as the creative process. Dance education courses at the high school level provide students with opportunities to seriously study dance as a highly disciplined form of art.

While the basic dance education program described in the North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum is comprehensive enough to meet the proposed program, dance encompasses a broad field of study. Thus additional opportunities, such as ballet and jazz, are appropriate when desired by the school community and when resources are available.

COURSE OF STUDY

K-6 Children's Dance
7-8 Dance Education
9-12 Dance I Dance II

The Dance competency-based curriculum:

- is designed for statewide use.
- offers flexibility for local curriculum development.
- is not correlated with any textbook and does not restrict the use of any relevant textbook or program.
- encourages the offering of a series of courses suitable to the varying abilities of all students.

Many school districts do offer other electives appropriate to this instructional area which are not a part of the State-funded basic education program. Such electives may include: Dance III, Dance IV, Ballet I, Ballet II, Dance History, Composition, and Choreography.

GRADES K-3

Major Emphases

Dance education at the early childhood level provides an introduction to dance through a variety of creative approaches. Children's dance, often referred to as creative dance, creative movement or movement exploration, begins with the exploration of the body as the instrument for dance. Activities which involve the use of large and small body parts foster the concept of kinetic awareness. Children discover that certain body parts can move in a variety of different ways.

The processes of perceiving, understanding, responding and creating are developed through the component elements of dance. Exploring ways of using time, space, and energy are basic to children's discovery of the movement potential of the various body parts.

Finding movement in natural phenomena and recognizing general qualities of that movement is important. Interpreting sounds and forces through movement enhances the expressive nature of dance. Making shapes in personal space and moving shapes from one space to another reinforces that movement takes place in space. Rhythmic responses help to develop the concept of time. Locomotor and non-locomotor movement help to develop a sense of sequence and pattern.

Children are encouraged to be imaginative and to freely express thoughts, feelings, and ideas. Movement is a natural resource children bring into the classroom and activities are most valid when directly related to their personal experiences. Children are allowed to create dances of their own and to work cooperatively with others.

Both structured and unstructured experiences are offered to introduce dance at the early childhood level. Spontaneity and a sense of joy should be natural to the classroom atmosphere. Dance becomes an acceptable means of expression.

Grade K Outline

1. Develop a positive attitude toward self, others, and the dance experience.

    1.1 Participate willingly in the dance experience.
    1.2 Work cooperatively with others.

2. Develop kinetic awareness.

    2.1 Understand that there are different body parts.
    2.2 Understand the difference in producing motion and maintaining stillness.

3. Understand the concept of space.

    3.1 Demonstrate the use of personal space.
    3.2 Demonstrate the use of general space.
    3.3 Demonstrate curved shapes.
    3.4 Identify curved shapes.
    3.5 Demonstrate angular shapes.
    3.6 Identify angular shapes.
    3.7 Understand the directions of up and down.
    3.8 Understand the directions of forward and backward.

4. Understand the concept of energy.

    4.1 Demonstrate sustained energy.
    4.2 Demonstrate percussive energy.

5. Understand the concept of time.

    5.1 Demonstrate fast and slow movement.
    5.2 Combine fast and slow movement.

6. Understand non-locomotor movement.

    6.1 Demonstrate moving in personal space using the whole body.

7. Understand locomotor movement.

    7.1 Demonstrate traveling in personal space.

8. Develop skills in improvisation.

    8.1 Demonstrate moving alone spontaneously with music.
    8.2 Demonstrate moving alone while exploring curved body shapes.

Grade 1 Outline

1. Develop a positive attitude toward self, others, and the dance experience.

    1.1 Willingly participate in the dance experience.
    1.2 Work cooperatively with another person.
    1.3 Understand that dance is expressive movement.

2. Develop kinetic awareness.

    2.1 Demonstrate an understanding of different body parts.
    2.2 Demonstrate the difference in producing motion and maintaining stillness.
    2.3 Demonstrate that movement can be far away from or close to the body.

3. Understand the concept of space.

    3.1 Demonstrate the use of personal and general space.
    3.2 Demonstrate body shapes in stillness and motion.
    3.3 Identify curved and angular shapes.
    3.4 Identify the directions of backward, forward, up and down.
    3.5 Demonstrate movement in a curved pathway.
    3.6 Demonstrate movement in an angular pathway.

4. Understand the concept of energy.

    4.1 Demonstrate the use of sustained and percussive energy.
    4.2 Demonstrate the use of heavy and light movement.
    4.3 Identify heavy and light.

5. Understand the concept of time.

    5.1 Demonstrate the use of slow and fast movement.
    5.2 Recognize fast and slow tempo in three musical compositions.
    5.3 Demonstrate basic rhythmic counting.

6. Understand non-locomotor movement.

    6.1 Understand moving in personal space using the whole body in a variety of ways.
    6.2 Understand combining two non-locomotor actions and repeating the two actions in sequence.

7. Understand locomotor movement.

    7.1 Understand movement which takes place in general space.
    7.2 Understand combinations of locomotor patterns.

8. Understand skills in sequence.

    8.1 Demonstrate making a simple movement sequence with sound accompaniment repeated.
    8.2 Demonstrate a simple movement sequence with sound accompaniment.

9. Understand skills in technique.

    9.1 Demonstrate technique to promote flexibility and strength.

10. Understand the concept of making a composition.

    10.1 Understand that idea and concepts can be translated into movement.

11. Develop skills in composition.

    11.1 Understand that a sequence of movement has a beginning, middle, and end.
    11.2 Translate simple ideas into dance.

12. Develop skills in improvisation.

    12.1 Demonstrate the ability to move alone while exploring locomotor movement.
    12.2 Demonstrate the ability to improvise in order to discover movements related to specific objects or ideas.

Grade 2 Outline

1. Develop a positive attitude toward self, others, and the dance experience.

    1.1 Demonstrate an awareness of the capabilities of others.
    1.2 Demonstrate communication and cooperation with others.
    1.3 Understand that dance is selected movement.

2. Develop kinetic awareness.

    2.1 Understand that different body parts can move in different ways.
    2.2 Understand that the body must be controlled for safe movement.
    2.3 Understand that different body parts can lead an action.
    2.4 Demonstrate that movement can expand and contract.
    2.5 Demonstrate flexion and tension.

3. Understand the concept of space.

    3.1 Demonstrate the use of personal and general space.
    3.2 Demonstrate curved and angular shapes in motion and stillness.
    3.3 Recognize critical differences in curved and angular shapes.
    3.4 Understand the directions of backward and forward.
    3.5 Understand the directions of up and down.
    3.6 Understand that pathways of movement can be along the floor or in the air.
    3.7 Understand that movement can take place at different levels.

4. Understand the concept of energy.

    4.1 Demonstrate the contrast of sustained and percussive energy.
    4.2 Understand the relationship of sound to heavy and light movement.
    4.3 Recognize heavy and light sound.
    4.4 Demonstrate vibratory (shaking) use of energy.
    4.5 Recognize vibratory movement in nature.

5. Understand the concept of time.

    5.1 Demonstrate the contrast of fast and slow movement.
    5.2 Understand repetition or making patterns of movement.
    5.3 Recognize visual patterns.
    5.4 Demonstrate pattern making in movement while using slow and fast movement.

6. Understand non-locomotor movement.

    6.1 Understand combining two non-locomotor actions with repeating the two actions in sequence.
    6.2 Understand combining two non-locomotor actions with changes in movement tempo.

7. Understand locomotor movement.

    7.1 Understand movement which takes place in general space.
    7.2 Understand combination of locomotor patterns.

8. Understand skills in sequence.

    8.1 Understand that movement can take place in succession.
    8.2 Recognize that sound can suggest movement possibilities.
    8.3 Demonstrate repetition of a single movement sequence.

9. Understand skills in technique.

    9.1 Understand the need for warm-up activities.
    9.2 Demonstrate techniques to promote flexibility and strength.

10. Understand the concept of composition.

    10.1 Recognize that dance has a beginning, middle, and end.
    10.2 Understand that ideas can be translated into dance.

11. Develop skills in composition.

    11.1 Translate simple ideas into dance.
    11.2 Recognize that a sequence of movement has a beginning, middle, and end.
    11.3 Combine simple sequences to make a dance.

12. Develop skills in improvisation.

    12.1 Demonstrate the ability to move alone while exploring locomotor and non-locomotor movement.
    12.2 Demonstrate the ability to follow another individual's movement/explorations.

Grade 3 Outline

1. Develop a positive attitude toward self, others, and the dance experience.

    1.1 Demonstrate an awareness of capabilities and limitations of the body.
    1.2 Demonstrate the ability to observe and concentrate on work done by others.
    1.3 Demonstrate cooperation with a small group.
    1.4 Understand that dance is selected movement.

2. Develop kinetic awareness.

    2.1 Understand that different body parts can move in different ways.
    2.2 Understand that the body must be controlled for safe moving when moving with others.
    2.3 Demonstrate that movement can be larger and smaller.
    2.4 Demonstrate that different body parts can lead an action.
    2.5 Demonstrate that different body parts can support the body.

3. Understand the concept of space.

    3.1 Demonstrate changes of direction while traveling in general space.
    3.2 Recognize curved and angular shapes in nature.
    3.3 Demonstrate movement in curved and angular pathways.
    3.4 Demonstrate that pathway of movement can be along the floor or in the air.
    3.5 Identify the levels of high and low.
    3.6 Understand focus or centered.
    3.7 Understand open and closed space.

4. Understand the concept of energy.
    - 4.1 Demonstrate the contrast of sustained and percussive energy.
    - 4.2 Understand heavy and light movement.
    - 4.3 Understand vibratory movement.
    - 4.4 Understand swinging movement.

5. Understand the concept of time.
    - 5.1 Demonstrate the contrast of fast and slow movements.
    - 5.2 Demonstrate the use of meter in movement.
    - 5.3 Understand repetition or making patterns of movement.
    - 5.4 Recognize even and uneven time.

6. Understand non-locomotor movement.
    - 6.1 Identify non-locomotor action words.
    - 6.2 Recognize and be able to translate non-locomotor action words into movement.

7. Understand locomotor movement.
    - 7.1 Demonstrate combining two locomotor movements and pathways.
    - 7.2 Demonstrate combining two locomotor movements with variations in time.

8. Understand skills in sequence.
    - 8.1 Demonstrate the ability to change from one body action to another.
    - 8.2 Demonstrate a movement sequence with related sounds.

9. Understand skills in technique.
    - 9.1 Understand flexibility and strength.

10. Understand the concept of composition.
    - 10.1 Understand that sequence is a series of movements.
    - 10.2 Understand that dance has a beginning, middle, and end.
    - 10.3 Recognize the inherent movement possibilities of a story or poem.

11. Develop skills in composition.
    - 11.1 Recognize movement possibilities in words.
    - 11.2 Recognize movement possibilities in poems and stories.
    - 11.3 Demonstrate that dance has a beginning, middle, and end.

12. Develop skills in improvisation.

    12.1 Demonstrate the ability to move alone while exploring locomotor and non-locomotor movement.
    12.2 Demonstrate the use of improvisation to make dance.

GRADES 4-6

Major Emphases

During the intermediate grades, the creative emphasis begun in the early childhood years is continued as students are introduced to a more sophisticated concept of dance. The vocabulary used for dance becomes important as students are required to enter into more analysis and discussion related to their work. Locomotor and non-locomotor skills are practiced to develop control of the body and improvisational opportunities are abundant.

Problem recognition and problem-solving become vehicles for creating dance. Simple compositions which explore uses of time, space, and energy should be an outgrowth of new concepts presented in class. Students share their work with one another and are both doers and viewers of dance.

At this grade level books, artwork, tapes, and other forms of information on the dance and its history are appropriately introduced. An enriched understanding and appreciation of dance is fostered by study of specific peoples whose use of dance is reflective of their culture. With this approach, it is appropriate for students to be taught predetermined patterns of dance, such as popular folk dances.

Grade 4 Outline

1. Develop a positive attitude toward self, others, and the dance experience.

    1.1 Demonstrate the ability to share and discuss ideas with a group.
    1.2 Demonstrate the ability to lead others and adapt to the leadership of others.
    1.3 Understand that dance is selected movement.
    1.4 Understand that dance is a way to communicate.

2. Develop kinetic awareness.

    2.1 Be aware that different body parts have different capacities for movement.
    2.2 Recognize symmetrical and asymmetrical body shapes.
    2.3 Understand that different body parts can lead movement.
    2.4 Understand that movements can be larger and smaller.
    2.5 Demonstrate that different body parts can support the body.

3. Understand the concept of space.

   3.1 Understand traveling in curved pathways.
   3.2 Be aware of a wide variety of words which describe space.
   3.3 Recognize the difference in curved and angular body shapes.
   3.4 Understand that specific use of pathways and levels can become dance.
   3.5 Understand that movement can be near or extend away from the body.
   3.6 Recognize the words of basic space concepts.
   3.7 Combine the elements of pathway, shape, and levels to make a dance.

4. Understand the concept of energy.

   4.1 Be aware of different combinations of energy in movement.
   4.2 Be aware of the uses of energy combinations.
   4.3 Be aware of the uses of energy combinations when making a dance.

5. Understand the concept of time.

   5.1 Recognize measured time.
   5.2 Demonstrate varied rhythmic combinations within a given metric scheme.
   5.3 Recognize the difference in measured and unmeasured time.
   5.4 Recognize accented and unaccented time.

6. Understand non-locomotor movement.

   6.1 Combine non-locomotor movement with the elements of time and space.
   6.2 Combine non-locomotor movement with the elements of space and time to make a dance.

7. Understand locomotor movement.

   7.1 Combine locomotor movement with the elements of time, space, and energy.
   7.2 Combine locomotor movement and rhythm.

8. Understand skills in sequence.

   8.1 Form sequence.
   8.2 Repeat sequences.
   8.3 Be aware of movement and sound sequence possibilities.

9. Understand skills in technique.

   9.1 Recognize techniques to promote flexibility.
   9.2 Be aware of the need for warm-up techniques.

10. Understand the concept of composition.
    - 10.1 Understand that increased movement vocabulary contributes to the development of form in dance.
    - 10.2 Understand the importance of repetition in order to remember sequences of movement in a dance.
    - 10.3 Be aware of the role of finding movement material for a dance through improvisation.
    - 10.4 Be aware of the importance of a partner in making dance.

11. Develop skills in composition.
    - 11.1 Extend the movement vocabulary of the body to allow for variety in composition.
    - 11.2 Recognize that a whole dance can be developed from selected parts of movement phrases.
    - 11.3 Be aware of the need for concentration to promote quality dance.

12. Develop skills in improvisation.
    - 12.1 Demonstrate improvising alone.
    - 12.2 Demonstrate the use of improvisation to form a dance with a partner.
    - 12.3 Understand the use of improvisation to form a dance with a partner.
    - 12.4 Understand the use of improvisation to form a dance with a small group.

Grade 5 Outline

1. Develop a positive attitude toward self, others, and dance as an art form.
    - 1.1 Demonstrate a supportive attitude toward the work of others.
    - 1.2. Respond freely to thoughts, ideas, and feelings through movement.
    - 1.3 Work well with others.
    - 1.4 Understand that there are many ways to form and make dance.
    - 1.5 Understand that dance is selected movement to produce a desired effect.

2. Understand the concept of kinetic awareness.
    - 2.1 Demonstrate that different body parts have different capabilities for movement.
    - 2.2 Understand that proper body maintenance is essential for dance.
    - 2.3 Be aware of the range of movement.
    - 2.4 Understand that proper body carriage is important.
    - 2.5 Identify the elements of proper body mechanics for the dancer.

3. Understand the concept of space.

    3.1 Understand traveling in general space in curved pathways combined with maintaining stillness in personal space, at different levels.
    3.2 Be aware of a wide variety of space words which result from moving in specific directions.
    3.3 Understand that specific use of general space, direction, and focus can become dance.
    3.4 Recognize the words of basic space concepts.

4. Understand the concept of energy.

    4.1 Be aware of different combinations of energy in movement.
    4.2 Be aware of the use of different amounts of energy.
    4.3 Be aware of the flow of movement.
    4.4 Be aware of energy and its relationship to shape.

5. Understand the concept of time.

    5.1 Demonstrate varied rhythmic combinations within a given metric scheme.
    5.2 Recognize the difference in measured and unmeasured time.
    5.3 Be aware of the difference in accented and unaccented time.
    5.4 Understand pattern.

6. Understand non-locomotor movement.

    6.1 Be aware of a wide variety of non-locomotor movement.
    6.2 Explore non-locomotor movement using the elements of time, space, and energy.

7. Understand locomotor movement.

    7.1 Combine locomotor movement using the elements of time, space, and energy.
    7.2 Combine locomotor movement using pattern and rhythm.
    7.3 Recognize and describe differences in locomotor movements.

8. Understand skills in sequence.

    8.1 Form and extend a sequence.
    8.2 Use repetition in order to retain sequence.
    8.2 Use simple sequence in relation to sound.

9. Understand skills in technique.

    9.1 Remember simple technique.
    9.2 Be aware of warm-up techniques for specific parts of the body.

10. Understand the concept of composition.

    10.1 Be aware that ideas and their relation to other ideas strengthen the dance.
    10.2 Understand the relationship of parts to the whole in composition.
    10.3 Discover movement material for dance through self-improvisation.
    10.4 Be aware of communication among members of a group when making a group dance.

11. Develop skills in composition.

    11.1 Extend the movement vocabulary of the body and allow for variety in composition.
    11.2 Recognize that a whole dance can be developed from selected parts of movement phrases.
    11.3 Demonstrate the necessary focus and concentration to promote quality in dance.
    11.4 Use improvisation to find movement material for a dance.

12. Develop skills in improvisation

    12.1 Demonstrate improvising alone.
    12.2 Improvise in order to make a dance.
    12.3 Improvise with a partner.
    12.4 Improvise with groups of individuals and use the improvisations to form dance.

Grade 6 Outline

1. Develop a positive attitude toward self, others, and dance as an art form.

    1.1 Be aware of the significance of one's contributions to the dance experience.
    1.2 Be supportive of the work of others.
    1.3 Understand that dance is selected movement to produce a desired effect.

2. Understand the concept of kinetic awareness.

    2.1 Recognize that different body parts have different capacities for movement.
    2.2 Be aware of the importance of good body alignment.
    2.3 Be aware of range of movement.
    2.4 Identify and demonstrate the element of proper body mechanics for the dancer.

3. Understand the concept of space.

    3.1 Be aware of dimension in space.
    3.2 Be aware of a wide variety of space words which result from moving in specific directions.
    3.3 Combine elements of space to make a dance.

4. Understand the concept of energy.

    4.1 Describe the time, weight, space, and flow elements of eight basic effort actions.
    4.2 Combine the elements of energy into dance.
    4.3 Be aware of energy in everyday usage.

5. Understand the concept of time.

    5.1 Recognize the differences in measured and unmeasured time.
    5.2 Be aware of the combination of tempo and time (sudden-sustained) change.
    5.3 Be aware of the difference in accented and unaccented time.
    5.4 Recognize the difference in the underlying beat of a piece of music and the rhythmic pattern.

6. Understand non-locomotor and locomotor movement.

    6.1 Combine non-locomotor and locomotor movement.
    6.2 Combine non-locomotor and locomotor movement in the body to make dance.
    6.3 Combine non-locomotor and locomotor movement using the elements of time, space, and energy.

7. Understand skills in sequence.

    7.1 Form and extend sequence.
    7.2 Use simple sequences in relation to sound.

8. Understand skills in technique.

    8.1 Remember simple technique and begin to take responsibility for warming up the body.
    8.2 Be aware of warm-up techniques for specific parts of the body.

9. Develop skills in composition.

    9.1 Extend the movement vocabulary of the body to allow for variety in composition.
    9.2 Demonstrate the necessary focus and concentration to promote quality in dance.

10. Understand the concept of composition.

    10.1 Be aware that ideas and their relationship to other ideas strengthens the dance.
    10.2 Understand the relationship of parts to the whole in composition.
    10.3 Discover movement material for dance through improvisation.

11. Develop skills in improvisation.

    11.1 Demonstrate improvising alone.
    11.2 Improvise to make a dance.
    11.3 Improvise with a partner.
    11.4 Improvise with groups of individuals and use the improvisations to form dance.

12. Develop a basis for dance criticism.

    12.1 Develop skills in observing dance.
    12.2 Analyze specific relationships or parts of the dance to the whole composition.

GRADES 7-8

Major Emphases

In grades seven and eight, cognitive awareness of technique as it relates to aesthetics is important. Proper body alignment and basic knowledge of anatomy and kinesiology is stressed to promote proper care for the body as the dance instrument. Classwork includes experiences which reinforce strength, flexibility, and endurance.

Dance, as a creative art form, is developed continually through the involvement of the creative process. Treatment of ideas, images, symbols, and feelings become more precise and movement qualities in the body are more recognizable. Students learn to make discriminating choices which help to perfect interpretation. Adequate time is allowed for them to bring their work to fruition through a variety of approaches, including improvisation.

Students are encouraged to formulate their own opinions and judgments based on a wide exposure to dance through live performances, films, and other media. General knowledge of dance history is expected to increase with outside class assignments, including selected readings and media events.

Grade 7 Outline

1. Develop a positive attitude toward self, others, and dance as an art form.
    - 1.1 Understand that dance is a unique way of heightening self-awareness.
    - 1.2 Recognize that different people choose to express themselves in a variety of ways.
    - 1.3 Perceive dance as being greater than one particular form of movement.
2. Understand the concept of kinetic awareness.
    - 2.1 Recognize that different body parts have different capacities for movement.
    - 2.2 Understand the importance of proper body alignment.
    - 2.3 Understand that range of movement is determined by flexion, extension, and rotation.
3. Understand the concept of space.
    - 3.1 Understand the dimensions of space.
    - 3.2 Recognize there are a variety of ways to define direction in space with movement.
    - 3.3 Utilize the elements of space to create dance.
4. Understand the concept of energy.
    - 4.1 Describe the time, weight, space, and flow elements of eight basic actions.
    - 4.2 Combine the elements of energy to make dance.
    - 4.3 Understand that the use of energy can be found throughout the everyday environment.
5. Understand the concept of time.
    - 5.1 Recognize the difference in measured and unmeasured time.
    - 5.2 Understand tempo variations.
    - 5.3 Understand the difference in accented and unaccented time.
6. Understand the concept of composition.
    - 6.1 Understand that ideas and their relationship to other ideas strengthen the dance.
    - 6.2 Understand the relationship of parts to the whole in composition.
7. Develop skills in technique.
    - 7.1 Remember simple techniques suitable for warming up the body and do so without cues.
    - 7.2 Become familiar with a variety of warm-up techniques for specific body parts.

Grade 8 Outline

1. Develop a positive attitude toward self, others, and the dance experience.

    1.1 Understand that dance is a unique way of heightening self-awareness.
    1.2 Recognize that different people choose to express themselves in a variety of ways.
    1.3 Perceive dance as being greater than any one particular form of movement.

2. Understand kinetic awareness.

    2.1 Recognize that body parts move separately and are coordinated with other body parts.
    2.2 Understand the importance of proper body alignment.
    2.3 Understand that range of movement is determined by flexion, extension, and rotation.
    2.4 Take responsibility for proper care of the body.

3. Understand the concept of space.

    3.1 Understand the dimensions of space.
    3.2 Recognize there are a variety of ways to define direction and pathway in space.

4. Understand the concept of energy.

    4.1 Understand that one can move with different qualities of movement.
    4.2 Understand that the use of different energy levels affects the quality of movement.
    4.3 Understand that all movement can be described by its energy qualities.

5. Understand the concept of time.

    5.1 Recognize the difference in measured and unmeasured time.
    5.2 Understand that footfall relates to even and uneven time.
    5.3 Understand the basic system of note value.

6. Understand the concept of composition.

    6.1 Understand there are unlimited possibilities for composing dance.
    6.2 Understand the relationship of parts to the whole in composition.

7. Develop skills in technique.

    7.1 Understand that technique provides opportunities to strengthen the body and build skills.
    7.2 Uses warm-up techniques appropriate to promote flexibility, strength, and endurance.

8. Understand the concept of improvisation.

    8.1 Understand that improvisation is a way of discovering movement possibilities.
    8.2 Understand that improvisation with others stimulates collaborative efforts.

GRADES 9-12

Major Emphases

Courses at the high school level provide students with the opportunity to devote a portion of their school day to the formal study of dance. Each course provides a strong technique base to develop strength, flexibility, and endurance as well as a continued emphasis on dance as a creative art form.

The acquisition of skill and refined motor control is desirable for dance students. Technique is understood as a means to extend the body's expressive capabilities. Students take responsibility for their personal health and care for their dance instrument.

Improvisational experiences remain abundant while a variety of principles of composition are studied and practiced. Students are allowed class time to work developmentally on choreography assignments. Students share insights into their work at various stages and the instructor offers assistance as appropriate. In ensemble work, students experience the role of both choreographer and dancer.

Students have opportunities to present their work to selected audiences. As with any performing art, the basic principles for presentation are studied. Dance for a variety of performing spaces, each with its own specific problems, is created.

Students are introduced to information regarding dance both as a vocational and avocational activity. Interest beyond the high school level is recognized in advisory and career counseling situations.

Dance I Outline

1. Develop a positive attitude toward oneself, others, and dance as an art form.

    1.1 Understand that dance is a way of heightening self-awareness and communicating personal movement style to others.
    1.2 Recognize that different people move with particular characteristics.
    1.3 Perceive that dance is influenced by personal movement styles, especially that of the choreographer.

2. *Develop kinetic awareness of* self and others.
    - 2.1 Understand that movement can flow from one body part to another.
    - 2.2 Use gross motor coordination and refined motor control.
    - 2.3 Develop a sense of "being centered" without the use of mirrors.
    - 2.4 Understand basic principles of anatomy and kinesiology.

3. Understand the concept of space.
    - 3.1 Understand that the quality of movement relates to space in particular ways.
    - 3.2 Recognize that "stage space" affects movement.

4. Understand the concept of energy.
    - 4.1 Understand that force in movement is affected by flow and control of energy and weight.
    - 4.2 Understand that range of tension and release can be an effective use of energy.
    - 4.3 Understand that musical accompaniment can be used effectively to complement levels of energy in movement.

5. Understand the concept of time.
    - 5.1 Understand that time concepts can be communicated with movement.
    - 5.2 Understand that musical accompaniment to dance can heighten awareness of various tempi.
    - 5.3 Become familiar with internal pulse.
    - 5.4 Understand that meter and tempi can affect the quality of movement.

6. Understand the concept of composition.
    - 6.1 Understand that dance is designed by the manipulation of the elements of time, space, and energy.
    - 6.2 Understand that variations of sequence and pattern are used to create dance.

7. Develop skills in technique.
    - 7.1 Understand that technique provides opportunities to strengthen the body and build skill levels.
    - 7.2 Understand that different dance forms have different techniques which build particular skill levels.

8. Understand the concept of improvisation.
    - 8.1 Understand that improvisation can release intuitive movement abilities.
    - 8.2 Understand that communication can take place between or among people during improvisation.

Dance II Outline

1. Develop a positive attitude toward self, others, and dance as an art form.
    - 1.1 Understand that dance is a unique way of heightening self-awareness and communicating ideas, thoughts, and/or feelings to others.
    - 1.2 Recognize that other people perceive things in similar and dissimilar ways.
    - 1.3 Perceive that dance is a creative vehicle and is not limited in its use for expression.
2. Develop kinetic awareness of self and others.
    - 2.1 Understand that movement can be a response to other sensory stimuli.
    - 2.2 Use gross motor coordination and refined motor control.
    - 2.3 Develop a sense of subtlety in movement.
    - 2.4 Understand basic principles of anatomy and kinesiology.
3. Understand the concept of space.
    - 3.1 Understand that shapes made with the body and shapes made by moving through space create spacial designs.
    - 3.2 Understand that any given space presents particular problems to be solved in movement.
4. Understand the concept of energy.
    - 4.1 Understand there are internal forces which affect movement.
    - 4.2 Understand there are external forces which affect movement.
    - 4.3 Understand that forces in natural phenomena have specific effects.
5. Understand the concept of time.
    - 5.1 Develop a sense of breath time.
    - 5.2 Develop a sense of metric time.
    - 5.3 Understand that various tempi affect the quality of movement.
6. Understand the concept of composition.
    - 6.1 Understand that composition is developed through the use of special designs, timing, sequences, patterns, etc., brought together with dynamic flow.
    - 6.2 Understand that content of the dance should follow the intent of the choreographer.
7. Develop skills in technique.
    - 7.1 Understand that technique provides opportunities to strengthen the body and build skill levels.
    - 7.2 Understand that different dance forms have different techniques which build particular skills and are combined when useful.

8. Understand the concept of improvisation.

   8.1 Understand that improvisation is a legitimate activity to develop dance.
   8.2 Understand that motivation for improvisation can come from a variety of stimuli.

MUSIC EDUCATION

PURPOSE AND OVERVIEW

The role of music in the public school is both vital and basic. Music serves to sharpen and focus perception and to provide a well-developed understanding and capability for nonverbal communication. This provides a viable balance to the essentially verbal communication encountered in other areas of schooling. Additionally, the study of music provides for verbal communication where it is needed and serves as a vehicle for enjoyment and personal expression. Through sharing music from the broad span of history as well as from varied cultures, students increase awareness of their own relationship to the world. In creating music which has not existed before, the student discovers new dimensions and capabilities not previously suspected.

Music study in the early years begins with fundamental experiences in the basic elements--melody, rhythm, harmony, form, tempo, tone color, and dynamics. The intent of the program at this level is to help the student become aware of an ever-widening spiral of possibilities for developing and interrelating these and other elements into more complex organizations. Attitudes, concepts, and skills are developed through experiences in singing, listening, rhythmic, creative and instrumental study. As confidence is acquired in the various areas of music, the entire process--the music experience--serves to aid in integrating and developing the student's personality.

Ultimately, music in the public school program serves to develop aural literacy. More simply, this is the ability to listen and to hear, to know what is heard and what meanings it can have. The pleasure of producing and receiving sounds which have meaning to oneself and to others makes music an attractive element of the curriculum.

Additionally, there is evidence to indicate that the focusing of perception which takes place in the listening process carries over and enhances capabilities in other areas of the child's study. Whether the individual pursues music as a consumer, performer, creator, teacher, or in many other ways, the basic approach to this endeavor is provided in the public school program.

The spiral nature of study in music and the other arts implies repetition of certain areas of course content with additional knowledge, concepts, and skills continually developing at each successive level of maturity.

COURSE OF STUDY

K-8
General Music

	9-12	
General Music (1 elective course)	Instrumental Music (6 levels each) Winds Percussion Strings	Vocal Music (4 levels)

The music competency-based curriculum:

- is designed for statewide use.
- is not correlated with any textbook and does not restrict the use of any relevant textbook or program materials.
- encourages the development of a series of offerings suitable to varied student abilities.
- provides for flexibility in local curriculum development.

Many school districts do offer other electives appropriate to this instructional area which are not a part of the State-funded basic education program. Such electives may include: Classical Piano, Electronic Music, Music Theory, Stage Band, Classical Guitar, and Swing Choir.

General Music Grades K-8

It is intended that the general music offering provided in the grades K-8 form the basis for all further study through the broad involvement of the student in experiences with the elements of music and with varied approaches for the use of music, along with the development of latent creative abilities. Music study during these years is based on a spiral curriculum structure, with the student repeating and building on competencies attained at earlier levels. Text materials compatible with this approach are adopted and made available for instructional use in this grade range.

Instrumental Music: Winds, Percussion, Strings (Grades 6-12, 6 levels possible)

Study beyond the basic general music offering broadens into a variety of options, depending on the student's interests and abilities. Pursuit of these areas is on an elective basis and may begin at different grade levels, often at grade six or thereafter, so that the individual's progress is not necessarily determined by the specific grade in which he or she is placed at any given time. For this reason, course offerings in these elective areas are not described as specific to a particular grade, but are given in successive levels of achievement, reflecting specific competencies which can be demonstrated by the student at each level. Six levels of competencies each, for winds, percussion, and strings are described for the instrumental program. Courses which utilize and develop these competencies may be band (concert band, symphonic band, brass ensemble, stage band, and/or wind ensemble), orchestra (string ensemble, chamber orchestra, and/or symphony orchestra, percussion ensemble), or other similar types of instrumental groups.

Vocal Music (Grades 9-12, 4 levels possible)

Building on the vocal experiences of the K-8 general music offering, various choral ensembles may be developed during the secondary experience. For this reason, competencies in vocal music have been described in four levels of student achievement. These, also, are not necessarily specific to grade levels, because of the variation in student ability and achievement. However, competencies contained in these descriptions will serve to locate the student along a continuum of development, and will provide for assessment and direction in ongoing growth. Courses which utilize and develop these competencies may be Glee Club, Chorus, Madrigal Singers, Concert Choir, A Capella Choir, or any other similar type of offering.

General Music (Grades 9-12, 1 course only)

The general music competencies described for the secondary level build on those of the K-8 program and teach the student to be a consumer, producer, and appreciator of music. It is the intention of this area of study to provide the student with an objective basis to appraise her or his future interests in music. This may involve, in addition to the study of music itself, the development of a perspective on music of the nation and the world, avenues for personal and emotional expression, skills needed for the selection and use of recording and reproducing equipment, and those skills needed for the informed purchase and maintenance of musical instruments. Courses which may embody the development of these competencies may be General Music, Music History/Appreciation, Special Interest-Music, or any other similar type of offering.

GENERAL MUSIC GRADES K-3

Major Emphases

Music study at the elementary level centers around three major areas of emphasis: the development of the child's creative capacities, growth in knowledge and skills relating to music, and the unfolding of aesthetic awareness.

In the K-3 years, importance is placed on establishing valid patterns of perception, and on helping the child to feel capable and free to become involved in music activities. For many children, this is the first experience with music activities in more than a cursory way, and the desire to help them know music as a way of being takes precedence over strictly factual input. However, invaluable learning takes place on which later more highly developed skills and understandings are built.

During the K-3 years, the child's motor functioning progresses from large muscle to small muscle control and the manipulation of instruments becomes more reliable, as does response to rhythm. Creative, cognitive, and aesthetic emphases are approached in music through various avenues. At this time the child is involved in the development of the singing voice. This includes the ability to match pitches, the control of the voice as to soft and loud, and the ability to begin and end along with other students. Aural experiences increase the capacity to listen to music and respond to it. Development of a rhythmic sense and the control and coordination of muscular responses expand the possibilities of expressing music through use of instruments. Increased ability to work in cooperation with peers is a vital outcome of these efforts. In all of these undertakings, the child is helped to shape a consciousness of the reality and power of music.

Finally, the child is aided in developing an understanding of music literature of all types, past and present, which is familiar and meaningful. All of these developments combine to provide the child with the beginnings of a capacity to internalize music and to produce it for others so that the reality of it can become an intrinsic part of her/his life.

Grade K Outline (selected competencies)*

1. Positive attitudes

    1.1 Understand the importance of her/his contributions.

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* Only selected competencies, those most representative of objectives at a particular grade or skill level have been included in this outline. The numbers correspond to objectives in the North Carolina Competency-Based Curriculum.

2. Concepts of music

2.2 Indicate that within a melody, pitches may remain the same or move up or down (melody).
2.5 Be aware that a sound or silence may be the same as another, or may be longer or shorter (rhythm).
2.7 Recognize that patterns of sounds may be relatively faster or slower than others (tempo).
2.10 Recognize that patterns of sounds may be relatively louder or softer than others (dynamics).
2.14 Recognize the different characteristics of sound produced by different sources (tone color).
2.16 Understand that two or more pitches may be sounded at the same time (harmony).
2.19 Recognize that patterns may be repeated with and/or without change (form).

3. Development of creative capabilities

3.2 Be aware of both problem-solving and problem recognition (concepts).
3.6 Develop and/or improvise melodic expressions for songs (skills).

4. Skills in music

4.1 Be aware of the difference between the singing and speaking voice (singing).
4.5 Show awareness of basic beat or pulse (rhythms).
4.11 Be aware of the extent of the introduction to a song and be ready to begin singing and/or playing (listening).
4.14 Be familiar with classroom instruments (instrumental performance).
4.19 Understand the pattern in rhythm and melody (analysis).
4.22 Be aware of the effect of tempo and dynamics (evaluation).
4.23 Be aware of the importance of leading/conducting (conducting).
4.25 Understand appropriate symbols for notating pitch and rhythm (music reading).
4.27 Respond to rhythms and dances using the whole body (physical coordination).

5. Knowledge of music

5.3 Verbalize about various songs and instrumental pieces with which s/he is familiar (history/literature).
5.4 Know appropriate terms used in music studied (terminology).

Grade 1 Outline (selected competencies)*

1. Positive attitudes

    1.3 Participate freely in the total program (toward self).
    1.5 Share knowledge and skills learned in music with fellow students (toward others).

2. Concepts of music

    2.1 Recognize that sounds may be relatively higher or lower (melody).
    2.4 Recognize the steady beat or pulse (rhythm).
    2.12 Recognize that different body movements may be used to illustrate tempo changes (tempo).
    2.14 Be aware that individual sounds or groups of sounds may become louder or softer (dynamics).
    2.20 Associate tone colors with pictures of familiar instruments (tone color).
    2.22 Understand that chords may be used to accompany a melody (harmony).
    2.25 Associate letters A and B or various geometric symbols with sections of music (form).

3. Development of creative capabilities

    3.4 Be aware of appropriate sounds for use in composition (concepts).
    3.9 Be aware that sound effects, movement, and dramatizations can enhance the effect of musical compositions (skills).

4. Skills in music

    4.2 Use voice with ease (singing).
    4.8 Show difference between beat and rhythm (rhythms).
    4.18 Associate melodic and rhythmic patterns with visual representations of those patterns (listening).
    4.21 Exhibit control of instruments by playing them at the appropriate time alone or with class members (instrumental performance).
    4.23 Comprehend phrase as having beginning, middle, and end (analysis).
    4.30 Assess the suitability of student-created accompaniments for songs and stories (evaluation).
    4.32 Understand need of "breathing" beat and cut-off (conducting).
    4.34 Coordinate eye movement to read simple notation (music reading).
    4.37 Use the body as a rhythm instrument (physical coordination).

* Only selected competencies, those most representative of objectives at a particular grade or skill level have been included in this outline. The numbers correspond to objectives in the North Carolina Competency-Based Curriculum.

5. Knowledge of music

   5.1 Know that music is written and performed in various combinations (history/literature).
   5.6 Know appropriate musical terms used in music studied (terminology).

Grade 2 Outline (selected competencies)*

1. Positive attitudes

   1.1 Understand that music is an important and valuable study which enriches her/his own life (toward self).
   1.4 Show tolerance of others' musical efforts (toward others).

2. Concepts of music

   2.3 Understand that melodies may progress by step or by skip (melody).
   2.7 Be aware that a sound or silence may be the same as another, or may be longer or shorter (rhythm).
   2.10 Be aware that groups of sounds may become faster or slower (tempo).
   2.17 Interpret words and symbols for indicating dynamics, such as p, mp, mf, f, crescendo, and decrescendo (dynamics).
   2.22 Be aware of the effect of combining instruments and/or voices to achieve varied tone colors (tone color).
   2.24 Understand that chords may be used to accompany a melody (harmony).
   2.28 Recognize forms such as: AB, ABA, ABAB, and ABACA (form).

3. Development of creative capabilities

   3.3 Be aware that compositions have a beginning, middle, and end (concepts).
   3.8 Use varied informal notational schemes to share compositions on paper (skills).

4. Skills in music

   4.6 Pronounce words of songs clearly (singing).
   4.9 Distinguish between sounds and silences (rhythms).
   4.13 Be aware of differences in sound of major, minor, and pentatonic scales (listening).
   4.20 Be aware of varied sound possibilities of instruments (instrumental performance).
   4.25 Recognize meter in sets of two, three, four, and six (analysis).

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4.32 Compare the appropriateness of choices in tempo and dynamics for performance of various songs (evaluation).
4.34 Understand need of "breathing" beat and cut-off (conducting).
4.38 Read melodies with repeated tones, steps, and/or skips (music reading).
4.41 Control fine and gross motor movements as needed (physical coordination).

5. Knowledge of music

5.4 Be aware of music from a range of times and places (history/literature).
5.7 Know appropriate musical terms used in music studied (terminology).

Grade 3 Outline (selected competencies)*

1. Positive attitudes

1.2 Understand the importance of her/his contributions (toward self).
1.5 Share knowledge and skills learned in music with others (toward others).

2. Concepts of music

2.4 Understand that two or more melodies may exist at the same time (melody).
2.10 Differentiate between the rhythm of the melody and that of the underlying beat (rhythm).
2.14 Understand significance of fermata in pausing tempo (tempo).
2.18 Recognize that any piece of music may be performed at different dynamic levels (dynamics).
2.24 Understand that various overall timbres characterize music of different time periods (tone color).
2.28 Understand relation of tonic triad to scale (harmony).
2.30 Recognize same/different sections of a composition (form).

3. Development of creative capabilities

3.5 Be aware of possible variations of tempo and dymanics for use in composition (concepts).
3.10 Understand the importance of dynamics, tempo, and articulation on the overall effect of the composition (skills).

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4. Skills in music

   - 4.5 Sing accurately and with pleasant tone quality (singing).
   - 4.11 Accompany songs or chants with repeated rhythm patterns (rhythms).
   - 4.17 Be aware of like and unlike phrases (listening).
   - 4.26 Develop ability to perform independent accompaniments and ostinati (instrumental performance).
   - 4.32 Apply analytical skills to music of other countries and cultures (analysis)
   - 4.38 Be aware of the effect of phrases and cadences in organizing compositions, songs, and poems (evaluation).
   - 4.40 Understand need of "breathing" beat and cut-off (conducting).
   - 4.45 Associate numbers and/or letter names with degrees of the scale (music reading).
   - 4.46 Respond to rhythms and dances using the whole body (physical coordination).

5. Knowledge of music

   - 5.6 Know that music is related to the other arts (history/literature).
   - 5.8 Know appropriate terms used in music studies (terminology).

GENERAL MUSIC GRADES 4-6

Major Emphases

Music study at the intermediate level continues the emphasis of the K-3 period on creativity, development of cognitive capacities and skills, and a growing development of the aesthetic sense.

In contrast to the K-3 years, where importance was placed on establishing valid patterns of perception, the emphasis in 4-6 is on developing awareness and capabilities. During this period, the student's motor control becomes progressively more coordinated, resulting in a greater certainty in all types of activity requiring fine adjustment, such as instrument playing, singing, movement, and rhythmic response. The singing voice acquires greater control and a wider range and part-singing is introduced and developed. Rhythmic senses are sharpened through instrumental experience, movement, and responses to increasingly more complex rhythms. Solo and ensemble experiences contribute to this development. Study of the elements of music continues here to develop basic and workable concepts of each element. Concepts of form and tone color, for example, now become more sharply defined.

The student's experiences with music literature become increasingly broader to include, in addition to the songs in basic textbooks, other types of music such as music of historical periods, classic and ethnic musics, popular music and contemporary expressions, such as electronic and chance music.

Development of skills in reading the printed score is emphasized at this time in both vocal and instrumental applications. Work with melody flute and recorder is appropriate at this time, and additional classes may be made available for those students electing to pursue study in greater depth on wind, percussion, and/or stringed instruments.

Grade 4 Outline (selected competencies)*

1. Positive attitudes

   1.2 Understand the importance of her/his contributions (toward self).
   1.5 Share knowledge and skills learned in music with others (toward others).

2. Concepts of music

   2.5 Understand the relationship of scales to their key signatures (melody).
   2.12 Relate fraction concepts to the notation of rhythm (rhythm).
   2.17 Comprehend that tempo and dynamics may operate in total independence (tempo).
   2.21 Verbalize about the effect of dynamics on the mood of the music (dynamics).
   2.26 Understand that instruments may be combined to create new tone colors (tone color).
   2.30 Understand that chords may be used to accompany a melody (harmony).
   2.34 Recognize that sections which are repeated may be varied without being totally changed (form).

3. Development of creative capabilities

   3.1 Be aware of her/his own creative capabilities (concepts).
   3.8 Utilize specific musical forms in compositions (skills).

4. Skills in music

   4.6 Control voice to maintain pitch independence (singing).
   4.15 Comprehend shifting of accent to produce syncopation (rhythms).
   4.22 Be aware of texture in music such as rough/smooth, thick/thin (listening).
   4.25 Understand autoharp chord symbols (instrumental performance).

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4.32 Understand basic triad structure and formation of first, fourth, and fifth scale degrees. Understand the importance of these chords in establishing tonality (analysis).
4.42 Make comparisons of different performance of the same piece of music (evaluation).
4.45 Understand the significance of beat patterns in conducting (conducting).
4.48 Apply understanding of intervals to reading (music reading).
4.51 Use the body as a rhythm instrument (physical coordination).

5. Knowledge of music

5.7 Know that each art form is made up of basic elements (history/literature).
5.8 Know compositions from North Carolina's musical heritage (terminology).

Grade 5 Outline (selected competencies)*

1. Positive attitudes

1.2 Understand the importance of her/his contributions (toward self).
1.4 Show tolerance of others' musical efforts (toward others).

2. Concepts of music

2.1 Understand that melodies may be formed from groups of tones which are repeated a step or more higher or lower (melody).
2.11 Differentiate between the rhythm of the melody and that of the underlying beat (rhythm).
2.19 Understand common tempo markings (tempo).
2.24 Interpret words and symbols for indicating dynamics, such as pp, p, mp, mf, f, ff, crescendo, and decrescendo (dynamics).
2.28 Understand that familiar musical instruments may be played in different ways to achieve varied sounds (tone color).
2.35 Understand formation of chords on significant scale degrees (harmony).
2.37 Understand that form is built up from motives, phrases, and sections (form).

3. Development of creative capabilities

3.6 Understand the use of ornamentation to enhance the effect of inprovisations and compositions (concepts).
3.11 Be aware that sound effects, movement, and dramatizations can enhance the effect of musical compositions (skills).

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4. Skills in music

4.6 Develop control of breath support and tone placement (singing).
4.15 Understand that meter signatures may change within a piece (rhythms).
4.19 Understand the whole and half step patterns which make up the major scale (listening).
4.32 Understand basic principles of woodwind instruments (instrumental performance).
4.38 Recognize when shifts of accents occur in basic meter pattern (analysis).
4.40 Verbalize about quality of performance (evaluation).
4.50 Understand the significance of beat patterns in conducting (conducting).
4.54 Understand the function of key signature (music reading).
4.58 Control gross and fine motor movements as needed (physical coordination).

5. Knowledge of music

5.2 Know that music has been written by many different creators (history/literature).
5.8 Know appropriate terms used in music studied (terminology).

Grade 6 Outline (selected competencies)*

1. Positive attitudes

1.2 Understand the importance of her/his contributions (toward self).
1.5 Share knowledge and skills learned in music with others (toward others).

2. Concepts of music

2.5 Understand that phrases within a melody may be of even and uneven length (melody).
2.11 Recognize that beats may be grouped by two, three, four, five, six, seven, eight, and ten (rhythm).
2.22 Comprehend that tempo and dynamics may operate in total independence (tempo).
2.29 Interpret words and symbols for indicating dynamics such as pp, p, mp, mf, f, ff, crescendo, and decrescendo (dynamics).
2.32 Understand that groups of instruments have similar tone colors (tone color).
2.41 Distinguish between triads and seventh chords (harmony).
2.51 Use formal structures (form).

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3. Development of creative capabilities

  3.4 View musical compositions as a whole (concepts).
  3.14 Understand the need for clear communication of performance instructions (skills).

4. Skills in music

  4.5 Control voice to maintain pitch independence (singing).
  4.15 Understand execution of subdivided beats and triplets (rhythms)
  4.23 Associate numbers, syllables, and letter names with steps of the scale (listening).
  4.33 Develop the ability to perform complex rhythm patterns accurately within ensemble (instrumental performance).
  4.40 Recognize when shifts of accents occur in basic meter pattern (analysis).
  4.49 Make comparisons of different performances of the same piece of music (evaluation).
  4.52 Understand the significance of beat patterns in conducting (conducting).
  4.53 Understand appropriate symbols for notating pitch and rhythm (music reading).
  4.60 Use the body as a rhythm instrument (physical coordination).

5. Knowledge of music

  5.5 Apply concepts of style to familiar music literature (history/literature).
  5.8 Be aware of music drama and music theatre (terminology).

GENERAL MUSIC GRADES 7-8

Major Emphasis

The music program at this level continues to build on and refine the creative capacities, knowledge and skills, and aesthetic development of previous years. At this stage, the curricular structure may continue the modification begun in grade six (where applicable) to include separate classes emphasizing instrumental and choral offerings in addition to those in general music.

Increasing differences in abilities and interests characterize students at this age. Provision is made for individual emphases, and music study is pursued in a variety of paths. Private study of one or more aspects of music may be a part of this individual emphasis for some students. Capacities are now developed for fine muscle coordination, and these are reflected in the technical execution of music during performance. An additional characteristic of these years is the development of a greater objectivity in relation to music.

Performance as an end in itself is a feature of the program at this stage, and students are capable of assuming greater responsibility in the preparation and direction of a performance, as well as in its execution.

A broad emphasis for the middle grades is to help students use music more discriminately and productively in daily living. They can come to see music as a source of pleasure and a means of communication and motivation, a part of the experience of being alive. At this level, the creative, cognitive, and aesthetic emphases are developed through continually broadening applications. Boys' changing voices make singing possible in three or more parts, and girls' voices develop an increasingly wider range as they mature. Rhythmic responses are more refined and dependable. A greater interest in, and capacity for, musical composition now takes place. Growing functional involvement with the elements of music, music literature, and reading of the printed score builds on the broad foundation of previous years.

Grade 7 Outline (selected competencies)*

1. Positive attitudes

    1.3 Participate freely in the total program (toward self).
    1.4. Show tolerance of others' musical efforts (toward others).

2. Concepts of music

    2.5 Understand that phrases within a melody may be of even and uneven length (melody).
    2.12 Understand that rhythm patterns may be combined and performed simultaneously (rhythm).
    2.22 Recognize that different body movements may be used to illustrate tempo changes (tempo).
    2.26 Be aware of subtle changes in dynamic levels (dynamics).
    2.36 Be aware of the effect of combining instruments and/or voices to achieve varied tone colors (tone color).
    2.41 Understand formation of chords on significant scale degrees (harmony).
    2.53 Use formal structures (form).

3. Development of creative capabilities

    3.8 Be aware of electronic means for creating and altering sounds (concepts).
    3.11 Utilize specific musical forms in compositions (skills).

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4. Skills in music

   4.4 Sing with clear articulation (singing).
   4.14 Understand grouping of beats into patterns of two, three, four, five, six, eight, and ten (rhythms).
   4.28 Be aware of characteristics that influence sound production (listening).
   4.31 Play folk instruments (instrumental performance).
   4.45 Be aware of the varied expressive possibilities of the human voice (analysis).
   4.53 Make comparisons of different performances of the same piece of music (evaluation).
   4.56 Understand the significance of beat patterns in conducting (conducting).
   4.62 Be familiar with new, nontraditional notations (music reading).
   4.63 Respond to rhythms and dances using the whole body (physical coordination).

5. Knowledge of music

   5.6 Know that music is related to the other arts (history/literature).
   5.8 Know appropriate terms used in music studied (terminology).

Grade 8 Outline (selected competencies)*

1. Positive attitudes

   1.2 Understand the importance of her/his contributions (toward self).
   1.5 Share knowledge and skills learned in music with fellow students (toward others).

2. Concepts of music

   2.9 Understand that the distance between two pitches may be measured and that this distance produces a characteristic sound (melody).
   2.16 Be aware that the beat may be subdivided (rhythm).
   2.23 Be aware that tempo markings frequently indicate the character of the music as well as its speed (tempo).
   2.33 Interpret words and symbols for indicating dynamics such as pp, p, mp, mf, f, ff, crescendo, and decrescendo (dynamics).
   2.39 Understand that various overall timbres characterize music of different time periods (tone color).
   2.48 Be aware of effect of harmony on musical texture (harmony).
   2.55 Use formal structures (form).

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3. Development of creative capabilities

   3.8 Be aware of electronic means for creating and altering sounds (concepts).
   3.14 Understand the importance of dynamics, tempo, and articulations on the overall effect of the composition (skills).

4. Skills in music

   4.9 Be aware of appropriate style of song (singing).
   4.13 Understand that beats may be grouped in patterns of varying lengths (rhythms).
   4.19 Be aware of the forms of the minor scale (listening).
   4.33 Develop ability to perform complex rhythm patterns accurately within the ensemble (instrumental performance).
   4.39 Understand the importance of notation to clarify musical understandings (analysis).
   4.50 Be aware of the effect of mode changes, augmentation, and diminution on melodies (evaluation).
   4.53 Understand the significance of beat patterns in conducting (conducting).
   4.60 Integrate musical understandings in reading (music reading).
   4.63 Control gross and fine motor movements as needed (physical coordination).

5. Knowledge of music

   5.5 Be aware of musical drama and musical theatre (history/literature).
   5.9 Know appropriate terms used in music studies (terminology).

INSTRUMENTAL MUSIC GRADES 6-12

Major Emphases

Students may enter instrumental programs at varied ages and states of development. Published music for band and orchestral instruments is generally graded on a six-step scale, with grade one being typically assigned to beginners of any age, and grade six to the most advanced players, regardless of their placement in school. For this reason, competency descriptions for instrumental music are given at six levels, paralleling the commonly-used levels of difficulty.

The instrumental curriculum is based on a spiral design, with the focus on development of skills and knowledge being repeated at each level. Each succeeding level adds new knowledge and continues the development of skills to progressively refined degrees.

Skills developed in this area include those in rhythm, ear-training, performance, conducting, form and analysis, and music reading. Knowledge is expanded in an historical and stylistic understanding of the music being studied. This knowledge is applied to provide insights into the accurate performance of each musical selection, not only with regard to specific technical requirements of a particular piece, but to the quality of sound as well. Knowledge is also expanded continually regarding symbols, terminology, and other indications on the printed score. Experience in both solo and large and small ensemble playing is an ongoing feature of this instructional area.

The essential intent of this study is to integrate perceptions in such a way that the instrument becomes an extension of the student as a means of personal, musical, social, and emotional expression.

Instrumental Music: Winds Outline (selected competencies, levels 1-6)*

Level One

1. Skills in music

    1.1 Understand rhythms in literature studied (rhythm).
    1.2 Understand technique and pitch discrimination involved in tuning (aural).
    1.3 Perform major scales in one octave (performance).
    1.7 Sight-read appropriate musical examples (reading).

2. Knowledge of music

    2.1 Understand musical terms in literature studied (terminology).

Level Two

1. Skills in music

    1.1 Understand beat units in addition to the quarter note (rhythm).
    1.3 Understand technique and pitch discrimination needed for tuning instruments (aural).
    1.6 Apply basic concepts of tone production (performance).
    1.10 Sight-read appropriate musical examples (reading).

2. Knowledge of music

    1.1 Understand terms in literature studied (terminology).

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Level Three

1. Skills in music

   1.1 Understand rhythms found in literature studied (rhythm).
   1.2 Understand intervals (aural).
   1.5 Perform tonic arpeggios (performance).
   1.9 Understand musical form and elementary harmonic principles (form).
   1.10 Read musical examples at sight (reading).

2. Knowledge of music

   2.1 Develop a repertoire of performance music appropriate for instrument (history/literature).
   2.2 Understand terms found in literature studied (terminology).

Level Four

1. Skills in music

   1.1 Understand complex rhythm patterns (rhythm).
   1.2 Tune individual instrument (aural).
   1.7 Understand trills, grace notes, and alternate fingerings (performance).
   1.12 Understand conducting patterns (conducting).
   1.13 Understand musical form (form).
   1.14 Sight-read musical examples (reading).

2. Knowledge of music

   2.1 Develop a repertoire of performance music for instrument (history/literature).
   2.2 Understand musical terms (terminology).

Level Five

1. Skills in music

   1.1 Understand rhythms encountered in literature studied (rhythm).
   1.2 Tune individual instrument (aural).
   1.5 Understand tone production (performance).
   1.14 Understand conducting patterns (conducting).
   1.15 Understand musical form (form).
   1.16 Sight-read musical examples (form).

2. Knowledge of music

   2.1 Develop a repertoire of performance music for instrument (history/literature).
   2.2 Understand musical terminology (terminology).

Level Six

1. Skills in music

    1.1 Perform complex rhythm patterns (rhythm).
    1.2 Tune instrument (aural).
    1.10 Exhibit self-reliance in performance of solo and small ensemble literature (performance).
    1.11 Understand musical form (form).
    1.12 Conduct rehearsals of ensemble (conducting).
    1.13 Sight-read musical examples (reading).

2. Knowledge of music

    2.1 Develop a repertoire of solo and ensemble literature (history/literature).
    2.2 Understand musical terms (terminology).

Instrumental Music: Percussion Outline (selected competencies, levels 1-6)*

Level One

1. Skills in music

    1.1 Understand beat units in addition to the quarter note (rhythm).
    1.2 Understand basic rudiments (performance).
    1.5 Sight-read appropriate musical examples (reading).

2. Knowledge of music

    2.1 Understand terms in literature studied (terminology).

Level Two

1. Skills in music

    1.1 Understand rhythms in literature studied (rhythm).
    1.2 Understand proper hand and stick position (performance).
    1.6 Sight-read appropriate examples (reading).

2. Knowledge of music

    2.1 Understand musical terms in literature studied (terminology).

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Level Three

1. Skills in music

    1.1 Understand rhythms found in literature studied (rhythm).
    1.3 Understand long roll (performance).
    1.5 Understand musical form (form).
    1.6 Read musical examples at sight (reading).

2. Knowledge of music

    2.1 Develop repertoire of performance music appropriate for instrument (solo and ensemble) (history/literature).
    2.2 Understand terms found in literature studied (terminology).

Level Four

1. Skills in music

    1.1 Understand complex rhythm patterns (meters).
    1.3 Understand major scales (performance).
    1.5 Understand conducting patterns (conducting).
    1.6 Understand musical form (form).
    1.7 Sight-read musical examples (reading).

2. Knowledge of music

    2.1 Develop a repertoire of performance music for instrument(s) (both solo and ensemble) (history/literature) .
    2.2 Understand musical terms (terminology).

Level Five

1. Skills in music

    1.1 Understand rhythms encountered in literature studied (rhythm).
    1.2 Tune individual instrument (aural).
    1.3 Master 13 essential rudiments (performance).
    1.8 Understanding conducting patterns (conducting).
    1.9 Understand musical form (form).
    1.10 Sight-read musical examples (reading).

2. Knowledge of music

    2.1 Develop a repertoire of performance music for instrument(s) (solo and ensemble) (history/literature).
    2.2 Understand musical terminology (terminology).

Level Six

1. Skills in music

   1.1 Perform complex rhythm patterns (rhythm).
   1.2 Tune instrument (aural).
   1.3 Understand the 26 rudiments (performance).
   1.10 Conduct rehearsals of ensemble (conducting).
   1.11 Understand musical form (form).
   1.12 Sight-read musical examples (reading).

2. Knowledge of music

   2.1 Develop a repertoire of solo and ensemble literature (history/literature).
   2.2 Understand musical terms (terminology).

Instrumental Music: Strings Outline (selected competencies, levels 1-6)*

Level One

1. Skills in music

   1.1 Understand rhythm values for notes and rests (rhythm).
   1.2 Understand rhythms in literature studied (rhythm).
   1.3 Develop ear training skills (aural).
   1.5 Understand correct playing position for the body, instrument, and bow (performance).
   1.11 Sight-read appropriate musical examples (reading).

2. Knowledge of music

   2.1 Understand musical terms in literature studied (terminology).
   2.2 Know the parts of the instrument (terminology).

Level Two

1. Skills in music

   1.1 Understand rhythm values for notes and rests (rhythm).
   1.3 Understand beat units in addition to the quarter note (performance).
   1.5 Develop improvisatory skills (aural).
   1.8 Understand bowing technique (performance).
   1.13 Sight-read appropriate musical examples (reading).

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2. Knowledge of music

    2.1 Understand terms in literature studied (terminology).

Level Three

1. Skills in music

    1.1 Recognize that rhythm is made up of strong and weak pulses (rhythm).
    1.3 Tune individual instrument (aural).
    1.7 Perform major scales (performance).
    1.11 Understand musical form and elementary harmonic principles (form).
    1.12 Read musical examples at sight (reading).

2. Knowledge of music

    2.1 Understand musical terms found in literature studies (terminology).

Level Four

1. Skills in music

    1.1 Understand complex rhythm patterns (rhythm).
    1.3 Understand intervals (aural).
    1.5 Understand tonic and dominant arpeggios (performance).
    1.15 Understand conducting patterns (conducting).
    1.16 Understand musical form (form).
    1.17 Create and notate original compositions (creative).
    1.18 Sight-read musical examples (reading).

2. Knowledge of music

    2.1 Develop a repertoire of solo and ensemble literature (history/literature).
    2.2 Understand musical terms (terminology).

Level Five

1. Skills in music

    1.3 Understand rhythms encountered in literature studied (rhythm).
    1.4 Tune individual instrument (aural).
    1.9 Perform with vibrato (performance).
    1.14 Understand conducting patterns (conducting).
    1.15 Understand musical form (form).
    1.16 Create and notate original compositions (creative).
    1.17 Sight-read musical examples (reading).

2. Knowledge of music

   2.1 Develop a repertoire of solo and ensemble literature (history/literature).
   2.2 Understand musical terminology (terminology).

Level Six

1. Skills in music

   1.1 Understand rhythm patterns encountered in literature (rhythm).
   1.4 Tune individual instrument (aural).
   1.11 Perform with vibrato (performance).
   1.16 Conduct rehearsals of ensemble (conducting).
   1.17 Understand musical form (form).
   1.20 Improvise music (creative).
   1.21 Sight-read musical examples (reading).

2. Knowledge of music

   2.1 Develop a repertoire of solo and ensemble literature (history/literature).
   2.2 Understand musical terms (terminology).

CHORAL MUSIC GRADES 9-12

Major Emphases

The choral music program at the secondary level builds on the knowledge, concepts, and skills of the elementary general music program. Competencies are described for it in four levels. Since students in this program are at varying degrees of achievement, which may not be related to grade level placement in school, the description in terms of achievement levels makes it possible to locate any student along this continuum and to provide for additional challenges in improvement of her/his capabilities.

The choral curriculum is based on a spiral design, with the focus on development of attitudes, skills, and knowledge being repeated at each level.

New knowledge is added at each level and the development of skills is continued to a progressively refined degree.

Inasmuch as choral music is, by its nature, a social phenomenon, student attitudes are important to this endeavor. The development of positive attitudes both toward the student personally and toward others is vital. Maturing of vocal, interpretative, and reading skills is another important focus of this study. Included in this area of the program is continuing refinement of the capacity to sing with carefully controlled pitch and vocal production and knowledge of how to care for the voice. Emphasis on the development of clear vowels and well-pronounced consonants is maintained for the production of optimal tone and diction. Also stressed throughout the program is the ability to shape phrases expressive of the composer's intent, precision of ensemble, and the ability to read the printed score at an increasingly sophisticated level.

The broad sweep of choral literature, reflecting many periods of history and input from innumerable individual creators, provides the basis for the development of a knowledge of historical, stylistic, and formal components which must be integrated to achieve realistic interpretations of this music. A natural implication of choral study is the development of a clear and meaningful understanding of all terms, symbols, and interpretative indications which the student encounters in the printed score.

Choral Music Outline (selected competencies, levels 1-4)*

Level One

1. Positive attitudes

    1.1 Show personal commitment to music (toward self).
    1.3 Evidence responsibility and loyalty toward group (toward others).

2. Skills in music

    2.2 Breathe correctly (vocal).
    2.8 Demonstrate an awareness of ensemble effort (interpretative).
    2.12 Recognize key of the work being studied (reading).

3. Knowledge of music

    3.1 Sing choral literature from varied historical style periods (history/literature).
    3.4 Understand rhythm patterns (theory).
    3.6 Know appropriate terms used in music studied (terminology).

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* Only selected competencies, those most representative of objectives at a particular grade or skill level have been included in this outline. The numbers correspond to objectives in the North Carolina Competency-Based Curriculum.

Level Two

1. Positive attitudes

    1.2 Take pride in musical accomplishments (toward self).
    1.3 Evidence responsibility and loyalty toward group (toward others).

2. Skills in music

    2.4 Understand principles of diction (vocal).
    2.8 Demonstrate phrasing (interpretative).
    2.12 Read rhythmic patterns (reading).

3. Knowledge of music

    3.2 Sing varied types of choral repertoire (history/literature).
    3.6 Understand harmony (theory).
    3.7 Know appropriate terms used in music studied (terminology).

Level Three

1. Positive attitudes

    1.2 Take pride in musical accomplishments (toward self).
    1.3 Evidence responsibility and loyalty toward group (toward others).

2. Skills in music

    2.7 Understand proper care of the voice (vocal).
    2.10 Demonstrate an awareness of ensemble effort (interpretative).
    2.16 Incorporate symbols and markings into reading process (reading).

3. Knowledge of music

    3.3 Sings music of both large and small ensembles (history/literature).
    3.7 Understand harmony (theory).
    3.8 Know appropriate terms found in music studied (terminology).

Level Four

1. Positive attitudes

    1.2 Show personal discrimination in music process (toward self).
    1.4 Evidence responsibility and loyalty toward group (toward others).

2. Skills in music

    2.6 Exhibit a tonal range over an octave (vocal).
    2.12 Read at sight (interpretative).
    2.17 Relate the parts of the score into the whole (reading).

3. Knowledge of music

   3.2 Relate appropriate choral tone to period of composition (history/literature).
   3.7 Understand form (theory).
   3.8 Understand harmony (terminology).

GENERAL MUSIC GRADES 9-12

Major Emphases

General music at the secondary level builds on the knowledge, concepts, and skills of the elementary general music program. Competencies for this course are designed to achieve that end, carrying it in the direction of the student as future producer, appreciator, and/or consumer. Study in this area will provide the general student a broad perspective on music to aid in shaping her/his future interests.

Six broad areas constitute the basis for this course of study: (1) development of a critical understanding of major types of music; (2) appreciation of music as a fine art form; (3) understanding varied cultures through music; (4) perception of music as a vital element of emotional expression; (5) discovery of areas in music for personal involvement; and (6) skills needed in making informed judgments as consumer and producer.

The development of a critical understanding of major types of music focuses on both contemporary and traditional music. Study of contemporary music emphasizes the knowledge of and ability to distinguish between varied stylistic differences in rock, popular, jazz, and serious music. Traditional music includes identification of varied elements of the folk style and a knowledge of classical music. An appreciation of music as a fine art form involves the identification of specific roles of the arts in society, a study of the values on which music and the arts are based, and an awareness of the broad scope of the art of music.

The approach to understanding of varied cultures through music begins with the United States. This includes the importance of music in the black culture; cultural values contributing to Hispanic music; and in the music of the American Indian, the reflection of nature and the total influence of all cultural elements. A similar approach is utilized in the examination of world musics.

Development of a perception of music as a valuable element for emotional expression grows out of an awareness of the need for positive avenues for this expression, the variety of emotional outlets acceptable to society, and a knowledge of specific ways in which music can provide for this outlet. Coupled with this study is an investigation into the broad range of possibilities for personal involvement in music, and the ability to relate musical expressions to the student's own perceived personal needs.

To aid the student in making informed judgments as a musical consumer and/or producer, this course of study focuses on both electronic equipment and the purchase and maintenance of musical instruments. In the electronic realm, the learner is helped to become aware of the specific components involved in both audio and video recording and playback. A correlate part of this study is an investigation into the various types of plugs, jacks, and cables required to interconnect this equipment, the need for impedance matching in these connections, and the significance of stated wattages in input and output. The study of musical instruments includes categorization of the significant differences in types of vertical and sizes of grand pianos, significant differences between acoustic and electric guitars and varied models and features of each, and the varied categories and features of band and orchestral instruments.

The content in the competency descriptions may be applied in the curriculum as a single overview course or may be approached through a number of individual course applications designed to examine these areas in greater depth.

General Music Outline (selected competencies, grades 9-12)*

1. Critical understanding of major types of music

    1.4 Distinguish between contemporary examples of serious music and other current styles (contemporary).
    1.5 Distinguish varied elements of folk style (traditional).

2. Appreciation of music as a fine art form

    2.1 Identify specific roles of the arts in human society (role of the arts).
    2.2 Recognize the values on which the arts are based (values).
    2.3 Express an awareness of the broad scope of art music (breadth of the arts).

3. Understanding of varied cultures through music

    3.1 Relate the importance of music in the Black culture (United States).
    3.4 Identify elements of each particular culture which influenced the development of music in Europe, Africa, the Near East, India, and the Far East (world cultures).

* Only selected competencies, those most representative of objectives at a particular grade or skill level have been included in this outline. The numbers correspond to objectives in the North Carolina Competency-Based Curriculum.

4. Music as a vital element of emotional expression

    4.1 Demonstrate an awareness of the need for positive avenues for emotional expression (emotional expression).
    4.3 Indicate awareness of specific expressions through music (emotional expression).

5. Areas in music for personal involvement

    5.1 Indicate a broad range of possibilities for personal musical involvement (possibilities).
    5.2 Be aware of relation of musical expressions to own personal needs (possibilities).

6. Skills in making informed judgments as consumer and producer

    6.1 Indicate awareness of specific components of recording/playback equipment (electronic equipment).
    6.6 Indicate awareness of differences in types and styles of instruments (musical instruments).

THEATRE ARTS

PURPOSE AND OVERVIEW

Theatre arts in the public school curriculum is multi-faceted. It serves to develop an understanding of the ideas, attitudes, beliefs, and feelings of people in different times throughout history as communicated through literature and theatre. In addition, it involves techniques for teaching and learning through developmental processes and activity-oriented methods. Furthermore, it assists in educating the emotions for controlled use, strengthening the imagination for creative self-expression, disciplining the voice and body for purposeful use, expanding intellectual horizons to include an aesthetic awareness, and providing a basic understanding and critical appreciation of all the theatre arts. Theatre arts activity includes the reading, viewing, preparing to perform, performing, directing, technical production, and writing of traditional and experimental theatrical forms. This activity involves students in the creative process and the practical application of theatre techniques as well as the intense study of what playwrights seek to convey and how this is intensified through theatrical production.

Students begin theatre arts with a sequence of creative activities beginning at the kindergarten level. Experiential learning where the student actually participates in speaking, moving, creating, doing, and evaluating activities helps develop the student's thinking and learning skills and promotes self-expression and the ability to interact with and be tolerant of others. Inherent in this process is the development of personal discipline, greater confidence, and the skills and ability to make decisions and to do critical thinking. Furthermore, students are placed in situations where creative abilities become apparent and must be used. This leads quite naturally to situations where they begin to realize their creative potential and are able to experiment with their abilities in a teacher-created and controlled, nonthreatening atmosphere. In the later years, students begin to apply and put into practice the knowledge, skills, and abilities already acquired through creative dramatics. There is greater focus on theatre arts as an art form comprised of many different areas for study, each having its own body of knowledge and skills. The collaboration among performers, staff, and technicians necessary to produce theatre production becomes apparent. In keeping with this diversity, students have the opportunity to participate and study in a variety of different areas and in different ways through course selection at the high school level.

Because of the broad base of knowledge and skills involved in theatre arts, experiences and learning must evolve in a sequential manner. Each area of study in theatre arts must be developed in this logical way in order for students to be able to understand and participate to the best of their ability at each ensuing level of understanding and refinement.

The skills of observation and presentation are taught and utilized by students throughout the study of theatre arts and, as these skills are mastered, they become a means of learning virtually any subject matter in a more dynamic way. Conversely, students so equipped can comprehend the meaning of the world around them as that world is presented in real life or theatrical versions on stage.

COURSE OF STUDY

K-8
Creative Dramatics

9-12
Theatre Arts I
Theatre Arts II
Technical Theatre I

The theatre arts competency-based curriculum:

- is designed for statewide use.
- is not correlated with any textbook and does not restrict the use of any relevant textbook or program materials.
- encourages the development of a series of offerings suitable to varied student abilities.
- provides for flexibility in local curriculum development.

Many school districts do offer other electives appropriate to this instructional area, though not a part of the State-funded education program. Such electives may include: Technical Theatre II, Introduction to Theatre, Acting I, Advanced Acting, Directing, and Theatre History.

GRADES K-3

Major Emphases

Theatre arts at the elementary level focuses on three major areas of growth: the unfolding of creative capacities, the development of knowledge and skills relating to creative drama, and the evolution of aesthetic awareness.

In the K-3 years, importance is placed on helping children feel capable and free to become involved in classroom dramatics activities. A reasonable attempt at trying to follow through with the process and complete the activity is considered to be the measure of success. For example, a concerted attempt at doing a pantomime is more important than how realistic or accurate the actual pantomime may appear to be. Much of the work done at this level is related to helping children interact in a socially productive way with peers. As this pattern of interaction becomes easier and more routine, it serves as a vehicle through which much valuable learning takes place. More highly developed skills and understandings are later built on this base.

In these early years, children begin to recognize that the ability to produce vocal sounds and use body movement are two major ways in which we communicate. In addition, listening, risk-taking, observing, concentrating, following directions, and controlled verbal or physical responses are all encouraged through participation in creative drama activities.

During this time, the creative, cognitive, and aesthetic emphases are approached in drama through various avenues and the innate dramatic skills are fostered and refined. Events which take place in the home provide prime acting situations, while school occurrences, holidays, and stories read in class serve to expand the repertory. Creative drama is used as a teaching tool along with pantomime, role playing, improvisation, movement exercises and exploration, sense awareness exercises, characterization, group theatre games, and other similar activities.

Natural talents are sharpened at this point through creative dramatics activities and directed toward transmitting to others with skill and confidence the characteristics and feelings of familiar animals, objects, people, and situations. The entire scope of the program leads to the development of observation, communication, and the capacity to work together.

Grade K Outline

1. Develop confidence by participating in simple creative drama activities.

    1.1 Display an increased awareness of surroundings.
    1.2 Display an increased awareness of the concept of characterization.
    1.3 Display an increased awareness of role playing.
    1.4 Display a greater understanding of feelings and emotions.
    1.5 Develop and demonstrate an understanding of sequence.
    1.6 develop basic concepts of creative drama skills.
    1.7 Know that the body talks without the use of words.

Grade 1 Outline

1. Continue to develop confidence in participating in creative drama activities while beginning to learn the necessary skills.

    1.1 Develop an understanding of creative drama as an observation and participation activity.
    1.2 Use more verbal expression in doing creative drama activities.
    1.3 Understand the importance of cooperative effort in dramatics.

    - 1.4 Physically or verbally respond with greater confidence and spontaneity.
    - 1.5 Demonstrate an understanding that following directions is a necessary and important part of participating in creative drama.
    - 1.6 Demonstrate an awareness of controlled movement in action situations.
    - 1.7 Demonstrate an attempt to achieve authenticity in creative drama whether it be verbal or nonverbal.

Grade 2 Outline

1. Continue to develop confidence in visual and verbal communication while participating in creative drama activities.

    - 1.1 Create and use simple dialogue in creative drama activities.
    - 1.2 Create and do simple creative drama activities that involve pantomime.
    - 1.3 Physically and verbally improvise simple creative drama activities.
    - 1.4 Recognize personal and individual differences through self and group expression.
    - 1.5 Develop and demonstrate more advanced listening or observing skills during creative play.

Grade 3 Outline

1. Develop concepts of human differences while participating in more advanced creative drama activities.

    - 1.1 Know and understand drama as a human experience.
    - 1.2 Demonstrate varying degrees of word meanings and an understanding of other's perceptions of what is said through creative drama.
    - 1.3 Develop and use with others a basic vocabulary in relation to creative drama.
    - 1.4 Show a willingness to make decisions and accept responsibility in drama activities.
    - 1.5 Employ the concepts of time, space, and action in creative drama.
    - 1.6 Understand and demonstrate that sharing and being flexible, on both an individual and group basis, is important in creative drama.

GRADES 4-6

Major Emphases

Theatre arts at the intermediate level continues the emphases begun at the K-3 period on creativity, development of cognitive capacities and skills, and a growing development of the aesthetic sense.

In contrast to the K-3 years, where importance is placed on establishing basic patterns of interaction, the emphasis in grades 4-6 is on developing greater awareness and more specific capabilities. Innate dramatic skills fostered earlier now begin to mature. With widening student horizons, skills in visual and verbal communication, and creative and critical thinking are expanded and refined through more complex and demanding individual and group creative dramatics activities. These skills, along with some basic acting and technical theatre skills and knowledge relative to theatrical presentation, are fostered through activities and presentations. Presentations, however, should never be the primary goal, nor should they place students in intimidating situations; instead, they should be an outgrowth of creative dramatics activities and presented as a sharing activity rather than as a polished theatrical production.

At this level, the creative, cognitive, and aesthetic emphases are developed through broadening avenues. Students are given more individual responsibility and are encouraged to contribute ideas, make decisions, and provide direction to others in controlled situations. A more elaborate approach to the theatrical appearance of presentations is encouraged through the use of simple masks, scenery, costumes, and makeup. The ability to sort out, understand, and convey to others through voice, movement, and facial expression ideas, feelings, and conceptions of a wide variety of events, situations, and stories is nurtured through practice.

Grade 4 Outline

1. Exercise discipline in more structured, individual, and group drama activities while continuing to develop creative drama skills through teacher-guided activities.

    1.1 Demonstrate a greater ability to concentrate on a specific creative drama task for a substantial period of time.
    1.2 Participate in simple choral reading activities.
    1.3 Participate in simple, short individual dramatic reading activities.
    1.4 Display the ability to use appropriate vocal projection and clarity in creative drama activities.
    1.5 Be confident with participating in pantomime or improvisational projects.

2. Become involved in simple technical theatre activities.

    2.1 Help produce simple scenery, props, costumes and/or makeup for creative drama activities.
    2.2 Assume duties relating to the technical aspects of doing a dramatic activity.

Grade 5 Outline

1. Develop individual responsibility while participating in creative drama activities.

    1.1 Demonstrate basic skills appropriate for being in the decision making role.
    1.2 Demonstrate the ability to do creative thinking on an individual basis in creative drama activities.
    1.3 Do simple sensory recall exercises.
    1.4 Illustrate the use of "who, when, where" to plan dramatic interpretation.
    1.5 Participate in more demanding improvisations or other creative drama activities.

2. Be involved in simple technical theatre activities.

    2.1 Help produce simple scenery, props, costumes, and/or makeup for creative drama activities.

Grade 6 Outline

1. Develop confidence in personal powers of observation and understanding while participating in creative drama activities.

    1.1 Recognize, understand, and use more advanced vocabulary in drama activities such as plot (beginning, conflict, resolution, ending, tragedy, comedy, theme, dialogue, and monologue).
    1.2 Perceive implications and draw inferences during creative drama activities.
    1.3 Demonstrate basic critical thinking skills in drama activities.
    1.4 Have an understanding of and the ability to do easy stage movement and speech.
    1.5 Demonstrate the ability to improvise scenes involving conflict of her/his own making.
    1.6 Participate in simple, improvised, theatrical productions based on original or literary material, planned and presented by the class or groups.

2. Know and understand that theatre arts involves many different activities and skills.

    2.1 Participate in some of the different aspects of theatrical production.

GRADES 7-8

Major Emphases

The theatre arts program at this level continues to build on and refine the creative capacities, knowledge, skills, and aesthetic developments of previous years. At this stage, additional emphasis is placed on theatre arts skills, augmented with a continuation of creative dramatics. Appropriate vocabulary, an increased emphasis on acting and directing skills, and the reading, viewing, and writing of dramatic literature is cultivated.

Growing differences in abilities and interests characterize students at this age and, for this reason, provision is made for individual emphasis by assigning the student special projects or by placing the her/him in various leadership roles. A broad emphasis for the junior high program is to help students to use drama more discriminatingly and productively in daily living and, as participant or viewer, to incorporate it into their lives. Students should come to perceive theatre as a means of pleasure and a way of communication, motivation, and learning. Theatre should become a part of the students' experience of life as a whole.

In the middle/junior high school years, the creative, cognitive, and aesthetic emphases are developed through continually broadening applications. Common terminology of technical theatre, acting, directing, and playwrighting becomes familiar. There is greater involvement with reading, writing, and performing scripts through which students are able to refine and practice performing skills. Students are encouraged to assist a teacher/director to guide and accomplish creative efforts of fellow students, and the significance of the individual as well as group effort is stressed.

Grade 7 Outline

1. Display initiative while continuing to participate in creative drama activities.

    1.1 Know and understand the importance of physical skills and conditioning exercises appropriate for preparation to perform.
    1.2 Develop a realistic or nonrealistic character for use in a scene or individual presentation.
    1.3 Plan and present effectively structured dramatic situations.
    1.4 Demonstrate very simple, basic acting skills.
    1.5 Be involved in readers theatre activities.
    1.6 Offer mutual support and understanding to peers during drama activities.

2. Distinguish between the different technical theatre areas and the particular knowledge and skills necessary to work in those areas.

    2.1 Know and demonstrate an understanding of what tasks different technical theatre crews perform.
    2.2 Continue to learn skills necessary to be involved in technical theatre activities.

Grade 8 Outline

1. Become familiar with theatrical literature in order to interpret it for performance and to understand how it reflects life and the human condition.

    1.1 Know and understand drama as literature.
    1.2 Know and understand written scripts as dramas meant to be performed for an audience.
    1.3 Display an awareness that drama can help in the understanding of life situations and is a human reflection of the commonality of man.

2. Come to know, understand, and appreciate theatre as an art form, most often done by a group of people, which is personally demanding and involves many different kinds of knowledge, discipline, and skills.

    2.1 With an understanding that acting is believing, display pantomime techniques with precision and accuracy to the best of her/his ability.
    2.2 Display an awareness of techniques for extending situations in improvised dramatic play.
    2.3 Participate in creating and producing simple, original scripts.
    2.4 Analyze dramatic scenes for motivation and plan action accordingly.
    2.5 Understand the difference between real life actions and theatrical presentation of the same actions.
    2.6 Consciously use projection, articulation, variety, and timing to dramatize believably.

3. Understand how the different areas of technical theatre complement and complete the total concept of a theatrical presentation.

    3.1 Understand and demonstrate that coordination and collaboration in technical theatre activities are essential.
    3.2 Understand, apply, and utilize the fundamentals of technical theatre as an integral part of drama activities.

GRADES 9-12

Major Emphases

The creative, cognitive, and aesthetic emphases in high school theatre arts are realized both through individual courses and across a broad range of varied course offerings. Complete theatre skills are added at this level to provide study for those who wish to pursue one or more of the areas that constitute theatre arts. Knowledge of theatre literature and history is stressed. Knowledge and skill in technical theatre are taught while creative proficiencies in technical theatre as well as in performing are polished. Stage, vocal, and movement techniques are developed and cultivated for use in theatrical production and as a means of presenting oneself in everyday life situations.

At this level, interests in drama vary widely. Individual abilities and concerns will determine the direction pursued by each student. Because of this, courses in all phases of formal theatre, and the development of original designs and material, including new playscripts, are featured. Important segments of the program are acting, directing, playwriting, set construction and design, lighting, costuming, makeup, and other activities related to theatrical production and organization. Skills learned earlier are retained and perfected and an awareness of the career potential of theatre is developed, along with an appreciation and understanding of theatre as both an art form and as entertainment.

Theatre Arts I Outline

1. Develop a basic understanding and knowledge of the origins of theatre and of theatre as an outgrowth of world cultures and as a reflection of society.
    - 1.1 Know how theatre has evolved by first developing an understanding of twentieth-century theatre.
    - 1.2 Have an understanding of the origins of theatre and why theatre exists.
    - 1.3 Have an understanding that the attitudes, beliefs, and feelings of people in different cultures and in different times throughout history have been expressed through different types of theatre.

2. Develop a basic understanding and knowledge of theatre literature and history.
    - 2.1 Have a basic knowledge of theatre literature associated with the different historical periods from the Egyptians to the present.
    - 2.2 Have a basic knowledge of theatre literature associated with some of the major theatrical styles and/or cultures.
    - 2.3 Understand plays as literature that is meant to be performed, as well as read.

3. Develop the knowledge, skills, and ability to speak meaningfully and distinctly in theatrical presentation.
    - 3.1 Know and understand important terms used in relation to the production of sounds by the voice and the related body movements.
    - 3.2 Know and understand a variety of standard exercises used to improve clarity and variety in speech and related body movement.
    - 3.3 Speak appropriately in a variety of theatrical settings.
    - 3.4 Speak clearly and distinctly when speaking or performing in theatrical projects or presentations.

4. Develop the knowledge, skills, and ability to act in theatrical presentations.
    - 4.1 Display an awareness of the different methods and techniques used in developing a theatrical role.
    - 4.2 Demonstrate an awareness of how to prepare for a role.
    - 4.3 Know and understand the basic theatrical terminology used by actors and directors.
    - 4.4 Take direction and replicate it in performance.
    - 4.5 Use physical skills and conditioning exercises appropriately.

5. Do the basic types of theatrical makeup.
    - 5.1 Display knowledge and skills in makeup to achieve desired characterization.

6. Direct others in short theatrical performances.
    - 6.1 Acquire the knowledge and skills necessary to direct plays.

7. Write scripts for performance.
    - 7.1 Acquire the knowledge and skills necessary to write scripts suitable for performance.

Theatre Arts II Outline

1. Develop a basic understanding and knowledge of theatre literature and history.
    - 1.1 Display a basic knowledge and understanding of the development of theatre from its beginnings to the present.

2. Develop to a further extent the knowledge, skills, and ability to act in theatrical presentations.

    2.1 Demonstrate an awareness of how to perfect a theatrical role and put these concepts into practice.
    2.2 Demonstrate an understanding and ability to handle special movement problems on stage.
    2.3 Recognize and demonstrate some of the more common types of dialects used on the stage.
    2.4 Objectively analyze and critique her/his and/or others' acting efforts.
    2.5 Study and do research on actors, acting styles, and theories of acting.

3. Direct others for theatrical performance.

    3.1 Function as director or assistant director for a play or other scripted performance piece.
    3.2 Analyze and critique her/his or others' directing efforts.

4. Write scripts for performance and objectively critique her/his own scripts or those of others.

    4.1 Write a play either by her/himself or with a group.
    4.2 Analyze and critique her/his or others' scripts in the written form and/or after having seen a performance of the script.

5. Design, illustrate, and make simple costumes from different periods and/or of different styles.

    5.1 Display knowledge and skills in costuming and costume design.

6. Understand the reasons for and do publicity and promotion for a school theatrical presentation.

    6.1 Display basic knowledge and skills necessary to provide publicity and promotion for a school theatrical presentation.

7. Know how and manage an adequate school box office.

    7.1 Have the skills to obtain tickets for a theatrical presentation.
    7.2 Be familiar with and carry out the basic procedures used in selling tickets.

Technical Theatre I Outline

1. Develop knowledge and skills in the technical elements of play production.
    - 1.1 Display an awareness of theatre organization, management, and operation.
    - 1.2 Display stagecraft knowledge and skills.
    - 1.3 Display knowledge and skills in scene design.
    - 1.4 Display knowledge and skills in theatrical lighting and lighting design.
    - 1.5 Display the basic knowledge and skills necessary to provide music and sound effects for an assigned script.

VISUAL ARTS

PURPOSE AND OVERVIEW

Art education in the public school curriculum reinforces the individual student's innate creative abilities by offering opportunities for visual self-expression. Focusing on problem recognition/problem-solving methodology, art experiences serve as a means of developing sensory perception, providing for nonverbal communication, and offering a vehicle for enjoyment while, at the same time, the student is learning to think creatively. Visual arts enhance the creative processes through skill development. Thus, a broader scope and meaning is given to the art program since the art project or activity becomes a means to an end rather than the end itself. The program is designed to sensitize students to their physical environment by totally involving them in activities where they must use various art media, design elements and principles, composition, aesthetics, criticism, and historical reference. Encouragement of personal imagination is of paramount importance.

In the early years, the program provides the foundation on which local units can design sequential structures which offer continuous growth and therefore, a development of concepts and skills throughout the remaining years which enable students to realize their artistic and creative potential. The problem recognition/problem-solving approach is continued. Art activities serve to enhance, reinforce, and develop the student's right hemispheric perception. To some degree, whole brain development can also be achieved by combining analysis, criticism, and reasoning skills with the visual interpretation of symbols, feelings, and intuition. At the intermediate level, exploratory processes continue to be encouraged through experiences in a variety of art media; however, composition skills, creating order from chaos, selecting, and structuring become the focus for this age child. Art activities should reflect a continuing degree of sophistication tailored for the individual student. The focus of the high school art program is to develop visual images in formal compositions and to recognize the importance of sensing beyond visual observation. Individual styles reflecting personal standards of quality are encouraged. The understanding and application of the concepts of analysis and synthesis for creative problem recognition/problem-solving are fostered. The art program is designed to encourage flexibility which allows the creative efforts of the student to be relative to her/his organized thought processes.

The North Carolina Standard Course of Study and the North Carolina Competency-Based Curriculum provide the art teacher with a means of unifying the art program with art colleagues in other school systems throughout the state without conforming to an established set of rigid and predetermined standards. Used as a format, art teachers should be able to justify the selection of art activities that have the appropriate content, methodology, procedure, and evaluation for their students. The grade level specifies the degree of sophistication and expectation for all art activities which may be chosen by the art teacher for each of the stated goals. The early childhood level (K-3) focuses on exploration and personal experiences. The intermediate grades emphasize a continuation of motor and perceptual skills. The middle/junior high art activities should become more selective and specialized. The secondary level reflects course offerings which require a prerequisite before the student can advance to the next level.

The representative selected media for visual arts centers on drawing, painting, printmaking, sculpture, and fine crafts. Goals, objectives, and measures are developed sequentially from kindergarten to the twelfth grade. There are many other equally important media in art education which deserve attention such as photography/film-making, creative crafts, commercial design, and electronic art. It is desirable eventually to include them in this document as on-going modifications are made to keep this publication a "live" curriculum. However, all art programs at all levels of education in the North Carolina Public Schools should reflect the five art media noted above, which are considered to be the minimum.

COURSE OF STUDY

K-8
Visual Arts
Drawing, Painting, Printmaking, Sculpture, Fine Crafts

9-12
Visual Arts I
Visual Arts II
Visual Arts III

The visual arts competency-based curriculum:

- is designed for statewide use.
- is not correlated with any textbook and does not restrict the use of any relevant textbook or program materials.
- encourages the development of a series of offerings suitable to varied student abilities.
- provides for flexibility in local curriculum development.

Many school districts do offer other electives appropriate to this instructional area, though not as a part of the State-funded basic education program. Such electives may include: Art IV, Photography, Jewelry-Making, Textiles, Pottery, Film-Making, Commercial Design/Graphics, and Batik.

GRADES K-3

Major Emphases

In the early childhood years, importance is placed on establishing within children the feeling of self-esteem and self-confidence by directly involving them in art activities that are designed to build on the knowledge they bring to the class. The major priorities of the art program at this level are to develop growth in knowledge and skills relating to art and to build aesthetic awareness. Eye and hand coordination and motor skills are developed through the manipulation of art tools. The study of art heritage and the development of aesthetic judgment are introduced in primary terms.

Active involvement in a variety of art media develops sensory perception which sensitizes children to the physical environment. Through heightened awareness, they come to value, use, and derive pleasure from their senses. Direct personal experiences with art media develop skills that enable children to communicate personal ideas, images, symbols, personality, and feelings in visual form. While being involved in viewing, discussing, and analyzing art works, they formulate an understanding and criteria for making judgments related to form, content, techniques, and purpose. Awareness of artistic accomplishments in various cultures of the world enables children to comprehend the place of art both in relation to that culture and to its meaning to the individual.

Grade K Outline

1. Develop positive attitudes about her/himself, about others, and about art.

    1.1 Demonstrate positive attitudes about her/himself.
    1.2 Accept work of others.
    1.3 Be eager to do and see art.

2. Develop the concepts necessary for understanding and producing art.

    2.1 Demonstrate an understanding of the basic elements of art.
    2.2 Demonstrate an understanding of the design principles.
    2.3 Demonstrate an understanding of the role personal perception and observation play in art.
    2.4 Demonstrate an understanding of the role creativity plays in art.
    2.5 Demonstrate an understanding of the role evaluation/critique plays in art.

3. Develop the skills necessary for understanding and producing art.

    3.1 Demonstrate skill and understanding in drawing and painting processes.
    3.2 Demonstrate skill and understanding in printmaking processes.
    3.3 Demonstrate skill and understanding in sculpture processes.
    3.4 Demonstrate skill and understanding in fine craft processes.
    3.5 Demonstrate ability to communicate about art.

4. Develop knowledge and appreciation of art in the past and present.

    4.1 Demonstrate knowledge and appreciation of art in the past and present.

5. Develop an awareness of art as an avocation and profession.

    5.1 Demonstrate an awareness of art as an avocation.
    5.2 Demonstrate an awareness of art as a profession.

Grade 1 Outline

1. Develop positive attitudes about her/himself, about others, and about art.
   - 1.1 Demonstrate positive attitudes about her/himself.
   - 1.2 Accept work of others.
   - 1.3 Be eager to do and see art.

2. Develop the concepts necessary for understanding and producing art.
   - 2.1 Demonstrate an understanding of the basic elements of art.
   - 2.2 Demonstrate an understanding of the design principles.
   - 2.3 Demonstrate an understanding of the role personal perception and observation play in art.
   - 2.4 Demonstrate an understanding of the role creativity plays in art.
   - 2.5 Demonstrate an understanding of the role evaluation/critique plays in art.

3. Develop the skills necessary for understanding and producing art.
   - 3.1 Demonstrate skill and understanding in drawing and painting processes.
   - 3.2 Demonstrate skill and understanding in printmaking processes.
   - 3.3 Demonstrate skill and understanding in sculpture processes.
   - 3.4 Demonstrate skill and understanding in fine craft processes.
   - 3.5 Demonstrate ability to communicate about art.

4. Develop knowledge and appreciation of art in the past and present.
   - 4.1 Demonstrate knowledge and appreciation of art in the past and present.

5. Develop an awareness of art as an avocation and profession.
   - 5.1 Demonstrate an awareness of art as an avocation.
   - 5.2 Demonstrate an awareness of art as a profession.

Grade 2 Outline

1. Develop positive attitudes about her/himself, about others, and about art.
   - 1.1 Demonstrate positive attitudes about her/himself.
   - 1.2 Accept work of others.
   - 1.3 Be eager to do and see art.

2. Develop the concepts necessary for understanding and producing art.

    2.1 Demonstrate an understanding of the basic elements of art.
    2.2 Demonstrate an understanding of the design principles.
    2.3 Demonstrate an understanding of the role personal perception and observation play in art.
    2.4 Demonstrate an understanding of the role creativity plays in art.
    2.5 Demonstrate an understanding of the role evaluation/critique plays in art.

3. Develop the skills necessary for understanding and producing art.

    3.1 Demonstrate skill and understanding in drawing and painting processes.
    3.2 Demonstrate skill and understanding in printmaking processes.
    3.3 Demonstrate skill and understanding in sculpture processes.
    3.4 Demonstrate skill and understanding in fine craft processes.
    3.5 Demonstrate ability to communicate about art.

4. Develop knowledge and appreciation of art in the past and present.

    4.1 Demonstrate knowledge and appreciation of art in the past and present.

5. Develop an awareness of art as an avocation and profession.

    5.1 Demonstrate an awareness of art as an avocation.
    5.2 Demonstrate an awareness of art as a profession.

Grade 3 Outline

1. Develop positive attitudes about her/himself, about others, and about art.

    1.1 Demonstrate positive attitudes about her/himself.
    1.2 Accept work of others.
    1.3 Be eager to do and see art.

2. Develop the concepts necessary for understanding and producing art.

    2.1 Demonstrate an understanding of the basic elements of art.
    2.2 Demonstrate an understanding of the design principles.
    2.3 Demonstrate an understanding of the role personal perception and observation play in art.
    2.4 Demonstrate an understanding of the role creativity plays in art.
    2.5 Demonstrate an understanding of the role evaluation/critique plays in art.

3. Develop the skills necessary for understanding and producing art.
    - 3.1 Demonstrate skill and understanding in drawing and painting processes.
    - 3.2 Demonstrate skill and understanding in printmaking processes.
    - 3.3 Demonstrate skill and understanding in sculpture processes.
    - 3.4 Demonstrate skill and understanding in fine craft processes.
    - 3.5 Demonstrate ability to communicate about art.

4. Develop knowledge and appreciation of art in the past and present.
    - 4.1 Demonstrate knowledge and appreciation of art in the past and present.

5. Develop an awareness of art as an avocation and profession.
    - 5.1 Demonstrate an awareness of art as an avocation.
    - 5.2 Demonstrate an awareness of art as a profession.

GRADES 4-6

Major Emphases

The intermediate grades equally emphasize creative art expression, the development of knowledge and skills relating to art, and the continuing growth of aesthetic awareness. Motor skills are refined and intuitive abilities are sharpened. Exposure to the study of art heritage and the development of aesthetic judgment are increased. Personal experiences are translated into visual form from which students can discover clues about themselves. Students are actively involved with a variety of art materials such as crayons, paints, drawing instruments, inks, and clay. This further develops visual-communicative skills. Furthermore, students derive satisfaction by demonstrating ideas, images, symbols, personality, and feelings while constructing visual interpretations of personal experiences. Students continue to formulate an understanding of, and criteria for, making judgments related to form, content, techniques, and purpose through involvement in viewing, discussing, and analyzing art works.

Grade 4 Outline

1. Develop positive attitudes about her/himself, about others, and about art.
    - 1.1 Demonstrate positive attitudes about her/himself.
    - 1.2 Accept work of others.
    - 1.3 Be eager to do and see art.

2. Develop the concepts necessary for understanding and producing art.

    2.1 Demonstrate an understanding of the basic elements of art.
    2.2 Demonstrate an understanding of the design principles.
    2.3 Demonstrate an understanding of the role personal perception and observation play in art.
    2.4 Demonstrate an understanding of the role creativity plays in art.
    2.5 Demonstrate an understanding of the role evaluation/critique plays in art.

3. Develop the skills necessary for understanding and producing art.

    3.1 Demonstrate skill and understanding in drawing and painting processes.
    3.2 Demonstrate skill and understanding in printmaking processes.
    3.3 Demonstrate skill and understanding in sculpture processes.
    3.4 Demonstrate skill and understanding in fine craft processes.
    3.5 Demonstrate ability to communicate about art.

4. Develop knowledge and appreciation of art in the past and present.

    4.1 Demonstrate knowledge and appreciation of art in the past and present.

5. Develop an awareness of art as an avocation and profession.

    5.1 Demonstrate an awareness of art as an avocation.
    5.2 Demonstrate an awareness of art as a profession.

Grade 5 Outline

1. Develop positive attitudes about her/himself, about others, and about art.

    1.1 Demonstrate positive attitudes about her/himself.
    1.2 Accept work of others.
    1.3 Be eager to do and see art.

2. Develop the concepts necessary for understanding and producing art.

    2.1 Demonstrate an understanding of the basic elements of art.
    2.2 Demonstrate an understanding of the design principles.
    2.3 Demonstrate an understanding of the role personal perception and observation play in art.
    2.4 Demonstrate an understanding of the role creativity plays in art.
    2.5 Demonstrate an understanding of the role evaluation/critique plays in art.

3. Develop the skills necessary for understanding and producing art.

   3.1 Demonstrate skill and understanding in drawing and painting processes.
   3.2 Demonstrate skill and understanding in printmaking processes.
   3.3 Demonstrate skill and understanding in sculpture processes.
   3.4 Demonstrate skill and understanding in fine craft processes.
   3.5 Demonstrate ability to communicate about art.

4. Develop knowledge and appreciation of art in the past and present.

   4.1 Demonstrate knowledge and appreciation of art in the past and present.

5. Develop an awareness of art as an avocation and profession.

   5.1 Demonstrate an awareness of art as an avocation.
   5.2 Demonstrate an awareness of art as a profession.

Grade 6 Outline

1. Develop positive attitudes about her/himself, about others, and about art.

   1.1 Demonstrate positive attitudes about her/himself.
   1.2 Accept work of others.
   1.3 Be eager to do and see art.

2. Develop the concepts necessary for understanding and producing art.

   2.1 Demonstrate an understanding of the basic elements of art.
   2.2 Demonstrate an understanding of the design principles.
   2.3 Demonstrate an understanding of the role personal perception and observation play in art.
   2.4 Demonstrate an understanding of the role creativity plays in art.
   2.5 Demonstrate an understanding of the role evaluation/critique plays in art.

3. Develop the skills necessary for understanding and producing art.

   3.1 Demonstrate skill and understanding in drawing and painting processes.
   3.2 Demonstrate skill and understanding in printmaking processes.
   3.3 Demonstrate skill and understanding in sculpture processes.
   3.4 Demonstrate skill and understanding in fine craft processes.
   3.5 Demonstrate ability to communicate about art.

4. Develop knowledge and appreciation of art in the past and present.

    4.1 Demonstrate knowledge and appreciation of art in the past and present.

5. Develop an awareness of art as an avocation and profession.

    5.1 Demonstrate an awareness of art as an avocation.
    5.2 Demonstrate an awareness of art as a profession.

GRADES 7-8

Major Emphases

The major emphasis at the 7-8 grade level is placed on individual exploratory involvement. The structure of the art program allows students to personally investigate experiences, thereby promoting the ability to formulate personal opinions and judgments. As the art program becomes more precise. It allows greater depth of study and longer periods of time with the art media. Students are taken through a wide range of exploratory activities designed to stimulate active participation in the creative process. They develop opinions and judgments through the processes of selection and discrimination, based on exposure to a wide variety of art activities, personal experiences, and knowledge gained by commitment to their own learning responsibilities. Through personal involvement in the application of art techniques and skills which use internal perceptions, students, through visual and mental insight about the physical world and their relationship to it, develop artistic abilities.

Grade 7 Outline

1. Develop positive attitudes about her/himself, about others, and about art.

    1.1 Demonstrate positive attitudes about her/himself.
    1.2 Accept work of others.
    1.3 Be eager to do and see art.

2. Develop the concepts necessary for understanding and producing art.

    2.1 Demonstrate an understanding of the basic elements of art.
    2.2 Demonstrate an understanding of the design principles.
    2.3 Demonstrate an understanding of the role personal perception and observation play in art.
    2.4 Demonstrate an understanding of the role creativity plays in art.
    2.5 Demonstrate an understanding of the role evaluation/critique plays in art.

3. Develop the skills necessary for understanding and producing art.

    3.1 Demonstrate skill and understanding in drawing and painting processes.
    3.2 Demonstrate skill and understanding in printmaking processes.
    3.3 Demonstrate skill and understanding in sculpture processes.
    3.4 Demonstrate skill and understanding in fine craft processes.
    3.5 Demonstrate ability to communicate about art.

4. Develop knowledge and appreciation of art in the past and present.

    4.1 Demonstrate knowledge and appreciation of art in the past and present.

5. Develop an awareness of art as an avocation and profession.

    5.1 Demonstrate an awareness of art as an avocation.
    5.2 Demonstrate an awareness of art as a profession.

Grade 8 Outline

1. Develop positive attitudes about her/himself, about others, and about art.

    1.1 Demonstrate positive attitudes about her/himself.
    1.2 Accept work of others.
    1.3 Be eager to do and see art.

2. Develop the concepts necessary for understanding and producing art.

    2.1 Demonstrate an understanding of the basic elements of art.
    2.2 Demonstrate an understanding of the design principles.
    2.3 Demonstrate an understanding of the role personal perception and observation play in art.
    2.4 Demonstrate an understanding of the role creativity plays in art.
    2.5 Demonstrate an understanding of the role evaluation/critique plays in art.

3. Develop the skills necessary for understanding and producing art.

    3.1 Demonstrate skill and understanding in drawing and painting processes.
    3.2 Demonstrate skill and understanding in printmaking processes.
    3.3 Demonstrate skill and understanding in sculpture processes.
    3.4 Demonstrate skill and understanding in fine craft processes.
    3.5 Demonstrate ability to communicate about art.

4. Develop knowledge and appreciation of art in the past and present.

    4.1 Demonstrate knowledge and appreciation of art in the past and present.

5. Develop an awareness of art as an avocation and profession.

   5.1 Demonstrate an awareness of art as an avocation.
   5.2 Demonstrate an awareness of art as a profession.

GRADES 9-12

Major Emphases

The art curriculum at the high school level offers a broad range of concentration from basic introductory courses to those of a more specialized nature. Emphasis is placed on a greater diversity of art offerings and depth of instruction. Each student is encouraged to pursue her/his own individual artistic interests. Each succeeding years' art courses are designed to provide the student with a base for the next year, in which each student can advance according to her/his own abilities. During grades 9-12, art studies will provide a sound foundation for those students pursuing art as a major in higher education, as well as those who may wish to draw upon their art skills as one of their capabilities in obtaining art-related employment upon graduation from high school.

Visual Arts I--Visual Arts I should be open to all secondary students who may desire exposure to art. The course offerings should reflect the appropriate degree of sophistication for the beginning art student and allow for the wide range of age differences and abilities of those enrolled. Attention should be directed to the fundamentals of art processes. Experimentation is encouraged. Students in a Visual Arts I course should be given the opportunity to explore a variety of visual arts media.

Visual Arts II--Visual Arts I, or three prior consecutive years of art experiences at the middle/junior high school level, is prerequisite for entry into the Visual Arts II course. The course syllabus should be designed for those who are considering concentrating on the visual arts. Attention should be given to all students enrolled, however, and the degree of sophistication of art activities should be tailored to individual ability. Research and art history assignments should be emphasized and should relate to studio activities. A strong emphasis on career opportunities in visual arts is a standard informational component of the Visual Arts II program.

Visual Arts III--Visual Arts II is a prerequisite for enrollment in the Visual Arts III course. Students desiring to enroll should indicate an intention to continue their academic career at an institution of higher education and/or find art-related employment after high school graduation. Research and art history are standard components of the Visual Arts III curriculum, and should be related to studio activities. Students should have a greater concentration in selected media designed to meet specific needs and individual abilities. Responsibility for art opportunities should be equally shared by each student and the art teacher.

Visual Arts I Outline

1. Develop positive attitudes about her/himself, about others, and about art.

    1.1 Demonstrate positive attitudes about her/himself.
    1.2 Accept work of others.
    1.3 Be eager to do and see art.

2. Develop the concepts necessary for understanding and producing art.

    2.1 Demonstrate an understanding of the basic elements of art.
    2.2 Demonstrate an understanding of the design principles.
    2.3 Demonstrate an understanding of the role personal perception and observation play in art.
    2.4 Demonstrate an understanding of the role creativity plays in art.
    2.5 Demonstrate an understanding of the role evaluation/critique plays in art.

3. Develop the skills necessary for understanding and producing art.

    3.1 Demonstrate skill and understanding in drawing and painting processes.
    3.2 Demonstrate skill and understanding in printmaking processes.
    3.3 Demonstrate skill and understanding in sculpture processes.
    3.4 Demonstrate skill and understanding in fine craft processes.
    3.5 Demonstrate ability to communicate about art.

4. Develop knowledge and appreciation of art in the past and present.

    4.1 Demonstrate knowledge and appreciation of art in the past and present.

5. Develop an awareness of art as an avocation and profession.

    5.1 Demonstrate an awareness of art as an avocation.
    5.2 Demonstrate an awareness of art as a profession.

Visual Arts II Outline

1. Develop positive attitudes about her/himself, about others, and about art.

    1.1 Demonstrate positive attitudes about her/himself.
    1.2 Accept work of others.
    1.3 Be eager to do and see art.

2. Develop the concepts necessary for understanding and producing art.

    2.1 Demonstrate an understanding of the basic elements of art.
    2.2 Demonstrate an understanding of the design principles.
    2.3 Demonstrate an understanding of the role personal perception and observation play in art.
    2.4 Demonstrate an understanding of the role creativity plays in art.
    2.5 Demonstrate an understanding of the role evaluation/critique plays in art.

3. Develop the skills necessary for understanding and producing art.

    3.1 Demonstrate skill and understanding in drawing and painting processes.
    3.2 Demonstrate skill and understanding in printmaking processes.
    3.3 Demonstrate skill and understanding in sculpture processes.
    3.4 Demonstrate skill and understanding in fine craft processes.
    3.5 Demonstrate ability to communicate about art.

4. Develop knowledge and appreciation of art in the past and present.

    4.1 Demonstrate knowledge and appreciation of art in the past and present.

5. Develop an awareness of art as an avocation and profession.

    5.1 Demonstrate an awareness of art as an avocation.
    5.2 Demonstrate an awareness of art as a profession.

Visual Arts III Outline

1. Develop positive attitudes about her/himself, about others, and about art.

    1.1 Demonstrate positive attitudes about her/himself.
    1.2 Accept work of others.
    1.3 Be eager to do and see art.

2. Develop the concepts necessary for understanding and producing art.

    2.1 Demonstrate an understanding of the basic elements of art.
    2.2 Demonstrate an understanding of the design principles.
    2.3 Demonstrate an understanding of the role personal perception and observation play in art.
    2.4 Demonstrate an understanding of the role creativity plays in art.
    2.5 Demonstrate an understanding of the role evaluation/critique plays in art.

3. Develop the skills necessary for understanding and producing art.

    3.1 Demonstrate skill and understanding in drawing and painting processes.
    3.2 Demonstrate skill and understanding in printmaking processes.
    3.3 Demonstrate skill and understanding in sculpture processes.
    3.4 Demonstrate skill and understanding in fine craft processes.
    3.5 Demonstrate ability to communicate about art.

4. Develop knowledge and appreciation of art in the past and present.

    4.1 Demonstrate knowledge and appreciation of art in the past and present.

5. Develop an awareness of art as an avocation and profession.

    5.1 Demonstrate an awareness of art as an avocation.
    5.2 Demonstrate an awareness of art as a profession.

Communication Skills

COMMUNICATION SKILLS

PURPOSE AND OVERVIEW

The ability to communicate effectively is essential for successful participation in our rapidly-changing world. The communication skills--listening, speaking, reading, writing, and viewing--are the means by which an individual establishes satisfactory relationships within our highly complex environment, for they enhance the quality of life and promote respect for human dignity. In addition, they enable decisions to be made with precision and promptness. These skills involve thinking processes that are learned and applied as an integrated part of a whole world of experiences available to every learner. Effective communication is dependent upon three important factors: the background of experiences the learner brings to a communication situation, the developmental stage of the learner, and the learner's sense of personal worth.

The purpose of the communication skills curriculum is to help students develop the skills of:

Listening--in order to understand and respond to spoken language.

Speaking--in order to verbally express one's feelings, thoughts, ideas, and experiences in ways which are understandable to others.

Reading--in order to determine and respond to meaning from written language.

Writing--in order to express feelings, thoughts, ideas, and experiences in written forms which are understandable to others.

Viewing--in order to understand and respond to what is seen.

These five communication processes build upon and support one another. For example, developing skills in listening comprehension will help to improve reading comprehension. In turn, what is learned through reading a wide variety of literature will help to increase listening comprehension as well as to improve written and verbal expression. The same five processes are emphasized at each grade level from K-12. The differences in the communication skills program at each grade level derive from the progressive development of skills and increased sophistication with which students are able to apply these processes in all subject areas.

Specific attention must be given to the development of skills in listening, speaking, reading, writing, and viewing. The development of listening skills is often overlooked because many assume it occurs without conscious effort or instruction. In reality, listening skills develop best when they are taught directly in the instructional program. Listening is not a passive activity; it requires effort and responsibility on the part of the listener who must hear, process information, and respond to the speaker. Otherwise, listening does not occur; words are only heard, not understood.

Speaking skills also develop best as the result of direct instruction. Students in grades K-12 should have increasing numbers of opportunities to speak in both formal and informal situations; they should receive instruction and evaluation according to their needs and interests.

Teachers must approach the development of speaking skills with a willingness to accept the language students bring to the learning situation as well as a desire to help students move toward the ability to use standard English. This move will be successful in the fullest sense only if it occurs without embarrassment to students. Teachers should remember that language other than standard English has been, is, and will continue to be useful in many situations. The sophisticated speaker is one who fashions speech to the audience, time, and place; who responds in all speaking situations with appropriate language, be it standard or nonstandard, formal or informal.

Reading builds on its relationship to the other communication skills. For example, when a student learns the meanings of words through listening and uses those words when speaking, s/he is more likely to recognize and comprehend those words when seeing them in print for the first time. Activities performed in listening, speaking, writing, and viewing may also provide motivation for reading.

The reading program focuses on gaining meaning from a variety of printed material, e.g., textbooks, newspapers, magazines, reference materials, novels. The program is based on literature which is defined as a representation of life via language as well as what the reader brings to bear on the print through her/his own experiences and emotions. Reading and the development of reading skills should take place in the context of literature. As the emphasis on the development of reading skills (learning to read) decreases, emphasis on the study of literary content, elements, language, and types (reading to learn) increases. With increasing sophistication, students apply reading skills to a wide variety of literature in all subject areas.

Writing--like listening, speaking, reading, and viewing--permeates the communication skills curriculum as well as the entire school program. Writing skills improve with study and practice. These begin with prewriting activities and first drafts, move through revisions and editing, and culminate in final publication. The activities of everyday life and the events around us provide the raw materials for the writer. Observation, thought, and expression through clear, concise prose afford each student with the means for personal creativity and expression. Grammatical skills--capitalization, punctuation, spelling, proper language usage, and vocabulary expansion--are applied in everyday writing usage, rather than as presentations of out-of-context drills from textbooks. Only through regular attempts at formulating effective written composition does the student come to appreciate the importance of word order, word forms, differing sentence combinations, and other grammatical concepts.

In a visually oriented world the skills of viewing have assumed increasing importance. The technology to instantly transmit visual information and entertainment from anywhere in the world and beyond underscores the importance of developing viewing skills--from simple, everyday observations to the analysis of multi-screen video images. Visuals shape actions, promote thoughts, and occasionally warp meaning. Students must be made aware of these influences so that they can effectively use them.

The development of communication skills also affects the ability to utilize effectively study skills which involve the communication processes of listening, speaking, reading, writing, and viewing. The study skills learned and progressively improved on at each consecutive level, enable students to become more responsible learners.

The full integration of the processes of listening, speaking, reading, writing, and viewing leads to improved thinking and problem-solving. Learning experiences should be designed to enable students to apply these integrated processes in meaningful, real-life situations. Language is learned through use.

COURSE OF STUDY

K-3
Oral Communication
Written Communication
Visual Communication

4-8
Oral Communication
Written Communication
Visual Communication

9-12
English I English III
English II English IV

1. Oral Communication--Listening and Speaking

    a. Listening comprehension
    b. Speaking techniques and social functions
    c. Attention to conventional language usage

2. Written Communication--Reading and Writing

    a. Reading
        (1) appreciation and enjoyment
        (2) vocabulary
        (3) comprehension
        (4) content area learning
        (5) study skills
        (6) literature
            (a) types (narrative fiction, narrative and lyric poetry, drama, nonfiction)
            (b) elements (plot, characterization, setting, theme, point of view, style, mood, tone)
            (c) language (e.g., simile, metaphor, personification, hyberbole)
    b. Writing
        (1) types
            (a) narrative
            (b) clarification
            (c) descriptive
            (d) persuasive
            (e) point of view
            (f) expository
        (2) mechanics
            (a) spelling
            (b) punctuation
            (c) capitalization
            (d) usage
            (e) handwriting (manuscript, cursive)

3. Visual Communication--Viewing

    a. Comprehension
    b. Design elements
    c. Visual creations

4. Special Areas

    a. Grammar
        (1) sentence structure
        (2) parts of speech
        (3) sentence transformation
        (4) sentence combining
    b. Dialects
        (1) regions
        (2) social influences
        (3) geographical influence
        (4) similarities and differences
    c. Semantics
        (1) perceptual effects of word meanings
        (2) behavioral effects of word meanings
    d. History of the English Language
        (1) historical influences
        (2) cultural influences

The course of study for communication skills presents the various components designed to promote literacy in grades K-12. Particular emphasis is placed upon the interrelatedness of all communication processes and skills.

At the K-3 level the program reflects how children learn language; it is characterized by the emphasis on children's use of language in real, meaningful situations. The interrelated nature of communication skills also requires an integrated program in grades 4-6 and 7-8. The developmental aspect of language learning requires continuity and refinement of skills through these grades. The English program in grades 9-12 reinforces, extends, and puts into practice the knowledge and skills learned in the earlier grades. It emphasizes real world communication experiences and imaginative literary journeys through the study of language in explanatory, persuasive, and expressive modes. Though not included in the State-funded basic education program, many school districts offer electives appropriate to this instructional area. Such electives may include: Journalism, Drama, Humanities, Speech, Developmental Reading, Composition, and Creative Writing.

LEARNING OUTCOMES

The following outline indicates the expected learning outcomes for the communication skills competency-based curriculum. Though these outcomes must be written in a linear fashion, it is important to remember that students do not develop communication skills in a linear fashion. Furthermore, the development of these skills is an interactive process; that is, students develop skills in one area at the same time they are developing skills in other areas, and their development of skills in one area is enhanced by their development of skills in all other areas.

As a result of her/his involvement in the communication skills competency-based curriculum, the learner will:

1. Listening

    a. Listen attentively.
    b. Develop listening comprehension strategies.

2. Speaking

    a. Use social functions of speech appropriately.
    b. Use appropriate speaking techniques.

3. Reading

    a. Become familiar with written language.
    b. Develop vocabulary.
    c. Become an independent reader.

d. Develop reading comprehension strategies.
e. Develop word recognition strategies.
f. Become familiar with various types of literature.

4. Writing

   a. Use prewriting activities.
   b. Draw, dictate, and/or write first drafts.
   c. Revise first and subsequent drafts.
   d. Edit revised drafts.
   e. Evaluate own and others' writing.
   f. Publish revised and edited writing.

5. Viewing

   a. Develop visual comprehension strategies.
   b. Recognize and interpret elements of design in visual situations.
   c. Compose visual communications.

6. Handwriting

   a. Develop appropriate manuscript writing skills.
   b. Develop appropriate cursive writing skills.

7. Study Skills

   a. Understand that materials are located in designated places.
   b. Understand that information and resources are available in a variety of ways and places.
   c. Locate, organize, and synthesize information from a variety of source materials.
   d. Record findings to questions in a variety of ways.
   e. Use study techniques to gain information.

8. Grammar

   a. Recognize basic principles of English grammar.
   b. Recognize the structure of a simple sentence.
   c. Understand the grammatical use of words and their functions in sentences.
   d. Transform basic sentences.
   e. Combine sentences.

9. Semantics/Dialects/History of the English language

   a. Recognize the effects of word meanings on perception and behavior.
   b. Recognize that there are many different English dialects.
   c. Recognize historical and cultural influences that have contributed to and will continue to contribute to changes in the English language.

GRADES K-3

Major Emphases

To help young children become literate, the K-3 program is built on the natural capacity of young children to learn language. It focuses on encouraging children to view themselves as successful users of language. Effective teachers understand the language processes and also understand the nature of children. Their classrooms, as literate environments, reflect how children use language in meaningful situations.

Five, six, seven, and eight year old children discover and construct knowledge from actual experiences. Their ability to understand abstract thought is still very limited. These characteristics call for a learning environment where concrete experiences provide the context from which spoken and written language emerge. The focus should be on activities that encourage children to use language rather than on studying it in isolation.

To develop listening, speaking, reading, writing, and observing in K-3, the majority of the activities will involve the regular concrete materials of early childhood: unit and table blocks, dramatic play props, manipulatives, puppets, games and puzzles, materials from the environment, and books. All the functions of language can be developed by a knowledgeable teacher through regular planned use of these materials. Although language differences are accepted, standard speech is continually modeled and every effort is made to encourage standard speech.

Reading to children is the first step in a sequential reading program. The focus is on meaning. Children's literature is the means by which children learn to read, although a wide variety of meaningful print is also accessible to the children. As they learn to read, children are encouraged and taught how to use meaning as an aid in word recognition. Phonic generalizations are learned through such strategies. Dictating and writing stories also help children develop proficiency in reading.

"Children as authors" is the focus of the writing program. Early attempts at writing, even scribbling and invented spellings, are encouraged. In the writing process, attention is given to meaning and fluency first. As children mature as writers, attention is given to capitalization, punctuation, and spelling within the context of their own writing.

Handwriting is given particular attention during the writing process. It is always used in meaningful situations--tracing a name, copying a label, checking for legibility. At first, unlined paper allows the child to experiment and learn the shape of the letter. Later a variety of lined paper is offered to help with alignment and size of letters. Several sizes of pencils are also made available.

The communication processes are delineated here only to show the various aspects of language. However in a program where talking, listening, reading, writing, and viewing are seen as the means to learning about mathematics, science, health, social studies, movement, and the arts, a natural integration will occur. Activities in these areas not only generate purposes for learning language but also help children become confident, literate users of language.

As a result of the communication skills program at this level children should be able to:

- think creatively
- listen and respond with understanding
- express ideas, concepts, and events orally
- express ideas, concepts, and events through the use of many forms of media
- read with understanding
- use and interpret nonverbal communication

Grade K Outline

LISTENING

Listening Attentively

1. Listen to basic needs expressed by others.
2. Listen to understand self, others, and the world around.
3. Listen to language of others and respond.
4. Listen to maintain relationships.

Developing Comprehension Strategies

5. Listen to gain information.
6. Listen to language to solve problems.
7. Listen in order to imagine and to enjoy.

SPEAKING

Using Social Functions

1. Use speech to communicate basic needs.
2. Use speech to understand self, others, and the world around.
3. Use speech to direct others.
4. Use speech to report and inform.
5. Use speech to solve problems.
6. Use speech to establish and maintain relationships.

Using Speaking Techniques

7. Use speech for its own sake to express imagination and enjoyment.
8. Exhibit effective verbal techniques.
9. Exhibit effective nonverbal techniques to accompany speech.

READING

Becoming Familiar with Written Language

1. Develop a familiarity with books and stories.
2. Understand that written language conveys meaning.
3. Develop a sense of story.
4. Understand that events and experiences can be recorded and later recalled by the use of group-authored stories.
5. Understand that oral language can be written down and read.
6. Develop an orientation to print.

Developing Vocabulary

7. Become familiar with signs and labels in the environment.
8. Become familiar with language found in books.

Becoming a Reader

9. Gain familiarity with predictable language.
10. Begin to gain an understanding of the concepts of "word," "letter," and "sound."

WRITING

Prewriting

1. Engage in prewriting activities that focus on concrete experiences.

Communicating in Functional Ways (Drafting/Revising/Editing)

2. Communicate basic needs through drawing, dictating, or writing lists, labels, or captions.
3. Direct others through drawing, dictating, or writing signs, directions, or rules.
4. Establish and maintain relationships through drawing, dictating, or writing messages.
5. Develop and maintain one's own identity through drawing, dictating, or writing about self and family.
6. Speculate and predict through drawing, dictating, or writing.
7. Convey information by drawing, dictating, or writing posters, booklets, or messages.
8. Express imagination by drawing, dictating, or writing stories or booklets.

Publishing

9. Participate in publishing selected pieces of writing for an identified audience.

HANDWRITING

1. Show an interest in a variety of written materials in the surrounding environment.
2. Demonstrate fine motor coordination in a variety of situations.
3. Understand the left to right pattern of writing.
4. Use upper and lower case letters on unlined paper to copy own previously dictated message.

VIEWING

Comprehension

1. Look at and respond to illustrations in books.
2. Recognize details in various visual contexts.
3. Recognize main idea in various visual contexts.
4. Summarize visual information.
5. Compare and contrast visual information.
6. Recognize cause and effect relationships in visual situations.

Design Elements

7. Recognize relationships between parts and the whole in visual situations.

Composing Visuals

8. Compose visual messages to communicate information.

STUDY SKILLS

Using Tools and Techniques that Promote Independence in Learning

1. Explore the characteristics and potential uses of the standard early childhood materials: books, sand, water, unit blocks, math manipulatives, art media, dramatic play props, natural science materials.
2. Pursue answers to questions about the natural environment, classroom materials, community, and people.
3. Understand that materials are located in designated places.
4. Understand that information and resources are available in a variety of ways and places.
5. Record findings to questions in a variety of ways.

Grade 1 Outline

LISTENING

Listening Attentively

1. Listen to basic needs expressed by others.
2. Listen to understand self, others, and the world around.
3. Listen to language of others and respond.
4. Listen to maintain relationships.

Developing Comprehension Strategies

5. Listen to gain information.
6. Listen to language to solve problems.
7. Listen in order to imagine and to enjoy.

SPEAKING

Using Social Functions

1. Use speech to communicate basic needs.
2. Use speech to understand self, others, and the world around.
3. Use speech to direct others.
4. Use speech to report and inform.
5. Use speech to solve problems.
6. Use speech to establish and maintain relationships.

Using Speaking Techniques

7. Use speech for its own sake to express imagination and enjoyment.
8. Exhibit effective verbal techniques.
9. Exhibit effective nonverbal techniques to accompany speech.

READING

Becoming Familiar with Written Language

1. Continue to develop a familiarity with books and stories.
2. Understand that written language conveys meaning.
3. Continue to develop a sense of story.
4. Understand that events and experiences can be recorded and later recalled by the use of group-authored stories.
5. Understand that oral language can be written down and read.
6. Continue to develop an orientation to print.

Developing Vocabulary

7. Continue to become familiar with signs and labels in the environment.
8. Continue to become familiar with language found in books.

Becoming a Reader

9. Read simple books which can be easily anticipated or predicted.
10. Understand the concepts of "word," "letter," and "sound."
11. Set a purpose for reading.

Developing Comprehension Strategies

12. Understand main idea and details in a story or book.
13. Understand plot, time, cause/effect, sequence, and logical arrangement of a story.
14. Be aware of the setting of a story or book.
15. Understand inference in a story.
16. Understand character traits depicted in a story.
17. Evaluate what is read.

Developing Word Recognition Strategies

18. Make predictions and confirm them.
19. Develop vocabulary to aid in comprehension.
20. Make some phonic generalizations.
21. Gain knowledge of word structure.

WRITING

Prewriting

1. Engage in prewriting activities that focus on concrete experiences.

Communicating in Functional Ways (Drafting/Revising/Editing)

2. Communicate basic needs through drawing, dictating, or writing lists, labels, and captions.
3. Direct others through drawing, dictating, or writing signs, directions, or rules.
4. Establish and maintain relationships through drawing, dictating, or writing messages.
5. Develop and maintain one's own identity through drawing, dictating, or writing about self and family.
6. Speculate and predict through drawing, dictating, or writing.
7. Convey information by drawing, dictating, or writing posters, booklets, and messages.
8. Express imagination by drawing, dictating, or writing stories and booklets.

Publishing

9. Participate in publishing selected pieces of writing for an identified audience.

HANDWRITING

1. Show an interest in a variety of written materials in the surrounding environment.
2. Demonstrate fine motor coordination in a variety of situations.
3. Understand the left to right pattern of writing.
4. Use conventional letter formation, letter size, spacing, and alignment in own printed message.

VIEWING

Comprehension

1. Look and respond to illustrations in books.
2. Recognize details in various visual contexts.
3. Recognize main idea in various visual contexts.
4. Summarize visual information.
5. Compare and contrast visual information.
6. Recognize cause and effect relationships in visual situations.

Design Elements

7. Recognize relationships between parts and the whole in visual situations.

Composing Visuals

8. Compose visual messages to communicate information.

STUDY SKILLS

Using Tools and Techniques that Promote Independence in Learning

1. Explore the characteristics and potential uses of the standard early childhood materials: books, sand, water, unit blocks, math manipulatives, art media, dramatic play props, natural science materials.
2. Pursue answers to questions about the natural environment, classroom materials, community, and people.
3. Understand that materials are located in designated places.
4. Understand that information and resources are available in a variety of ways and places.
5. Record findings to questions in a variety of ways: drawing a picture, making a model, making a graph.

Grade 2 Outline

LISTENING

Listening Attentively

1. Listen to basic needs expressed by others.
2. Listen to understand self, others, and the world around.

3. Listen to language of others and respond.
4. Listen to maintain relationships.

Developing Comprehension Strategies

5. Listen to gain information.
6. Listen to language to solve problems.
7. Listen in order to imagine and to enjoy.

SPEAKING

Using Social Functions

1. Use speech to communicate basic needs.
2. Use speech to understand self, others, and the world around.
3. Use speech to direct others.
4. Use speech to report and inform.
5. Use speech to solve problems.
6. Use speech to establish and maintain relationships.

Using Speaking Techniques

7. Use speech for its own sake to express imagination and enjoyment.
8. Exhibit effective verbal techniques.
9. Exhibit effective nonverbal techniques to accompany speech.

READING

Emerging as a Reader

1. Continue to develop familiarity with books and stories.
2. Recognize relevant print in the environment.
3. Read for a variety of purposes.

Increasing Comprehension Strategies

4. Demonstrate an understanding of main idea and details.
5. Understand plot, time, cause/effect, sequence, and logical arrangement of a story.
6. Recognize the setting of a story.
7. Understand inference in a story.
8. Understand character traits depicted in a story.
9. Evaluate what is read.

Refining Word Recognition Strategies

10. Make predictions and confirm them.
11. Develop vocabulary to aid in comprehension.
12. Continue to develop phonic generalizations.
13. Continue to gain knowledge of word structure.

WRITING

Prewriting

1. Engage in prewriting activities that focus on concrete experiences.

Communicating in Functional Ways (Drafting/Revising/Editing)

2. Communicate basic needs through drawing and writing lists, labels, and captions.
3. Direct others through drawing and writing signs, directions, and rules.
4. Establish and maintain relationships through drawing and writing messages.
5. Develop and maintain one's own identity through drawing and writing about self and family.
6. Speculate and predict through drawing and writing.
7. Convey information by drawing and writing posters, booklets, and messages.
8. Express imagination by drawing and writing stories and booklets.

Publishing

9. Participate in publishing selected pieces of writing for an identified audience.

HANDWRITING

1. Show an interest in a variety of written materials in the surrounding environment.
2. Demonstrate fine motor coordination in a variety of situations.
3. Use conventional letter formation, letter size, spacing, and alignment in a printed message.

VIEWING

Comprehension

1. Look and respond to illustrations in books.
2. Recognize details in various visual contexts.
3. Recognize main idea in various visual contexts.
4. Summarize visual information.
5. Compare and contrast visual information.
6. Recognize cause and effect relationships in visual situations.

Design Elements

7. Recognize relationships between parts and the whole in visual situations.

Composing Visuals

8. Compose visual messages to communicate information.

STUDY SKILLS

Using Tools and Techniques that Promote Independence in Learning

1. Explore the characteristics and potential uses of the standard early childhood materials: books, sand, water, unit blocks, math manipulatives, art media, dramatic play props, natural science materials.
2. Pursue answers to questions about the natural environment, classroom materials, community, and people.
3. Understand that materials are located in designated places.
4. Understand that information and resources are available in a variety of ways and places: environmental sources, catalogs, encyclopedias, brochures, dictionaries, pictorial materials, book parts, and simple thesauri.
5. Record findings to questions in a variety of ways: drawing a picture, building a structure, listing, writing a short report, presenting a graph.

Grade 3 Outline

LISTENING

Listening Attentively

1. Listen to basic needs expressed by others.
2. Listen to understand self, others, and the world around.
3. Listen to language of others and respond.
4. Listen to maintain relationships.

Developing Comprehension Strategies

5. Listen to gain information.
6. Listen to language to solve problems.
7. Listen in order to imagine and to enjoy.

SPEAKING

Using Social Functions

1. Use speech to communicate basic needs.
2. Use speech to understand self, others, and the world around.
3. Use speech to direct others.
4. Use speech to report and inform.
5. Use speech to solve problems.
6. Use speech to establish and maintain relationships.

Using Speaking Techniques

7. Use speech for its own sake to express imagination and enjoyment.
8. Exhibit effective verbal techniques.
9. Exhibit effective nonverbal techniques to accompany speech.

READING

Reading for Independence

1. Continue to develop familiarity with books and stories.
2. Recognize relevant print in the environment.
3. Read for a variety of purposes.

Refining Comprehension Strategies

4. Demonstrate an understanding of main idea and details.
5. Understand plot, time, cause/effect, sequence, and logical arrangement of a story.
6. Recognize the setting of a story.
7. Understand inference in a story.
8. Understand character traits depicted in a story.
9. Evaluate what is read.

Refining Word Recognition Strategies

10. Make predictions and confirm them.
11. Develop vocabulary to aid in comprehension.
12. Use phonic generalizations.
13. Continue to gain knowledge of word structure.
14. Gain knowledge of descriptive language.

WRITING

Prewriting

1. Engage in prewriting activities that focus on concrete experiences.

Communicating in Functional Ways (Drafting/Revising/Editing)

2. Communicate basic needs through writing lists, labels, and captions.
3. Direct others through writing signs, directions, and rules.
4. Establish and maintain relationships through writing messages.
5. Develop and maintain one's own identity through writing about self and family.
6. Speculate and predict through writing.
7. Convey information through writing posters, booklets, and messages.
8. Express imagination through writing stories and booklets.

Publishing

9. Participate in publishing selected pieces of writing for an identified audience.

HANDWRITING

1. Show an interest in a variety of written materials in the surrounding environment.
2. Demonstrate fine motor coordination in a variety of situations.
3. Use conventional letter formation, letter size, spacing, and alignment in a printed message.
4. Use conventional cursive letter formation, letter size, spacing and alignment in a written message.

VIEWING

Comprehension

1. Look and respond to illustrations in books.
2. Recognize details in various visual contexts.
3. Recognize main idea in various visual contexts.
4. Summarize visual information.
5. Compare and contrast visual information.
6. Recognize cause and effect relationships in visual situations.

Design Elements

7. Recognize relationships between parts and the whole in visual situations.

Composing Visuals

8. Compose visual messages to communicate information.

STUDY SKILLS

Using Tools and Techniques that Promote Independence in Learning

1. Explore the characteristics and potential uses of the standard early childhood materials: books, sand, water, unit blocks, math manipulatives, art media, dramatic play props, natural science materials.
2. Pursue answers to questions about the natural environment, classroom materials, community, and people.
3. Understand that materials are located in designated places.
4. Understand that information and resources are available in a variety of ways and places: dictionaries, thesauri, catalogs, encyclopedias, brochures, book parts, pictorial materials, environmental sources.

5. Record findings to questions in a variety of ways: drawing a picture, building a structure, listing, writing a short report, presenting a graph.

GRADES 4-6

Major Emphases

The communication skills of listening, speaking, reading, writing, and viewing are complex interrelated thinking processes. The development of each is dependent not only on each of the other skills, but also on the opportunities the learner has to utilize the skills in concrete, content experiences. Utilizing the processes in these experiences, in addition to developing skills, enables the learner to participate in a variety of situations which encourage group interaction, decision-making, and responsibility.

Listening is a receptive language activity in that the student is attending to the message of a speaker. To be a productive listener, the information and the attitudes the student brings to the situation are crucial. The goal for grades 4-6 is to listen attentively, literally, interpretively, and critically.

Speaking is a productive language activity. Like writing, the student speaks best about what he knows and has experienced. The goal for grades 4-6 is to speak effectively for a variety of purposes, e.g., expressing feelings, solving problems, and asking and answering questions.

Reading is a receptive language activity in which the student uses prior knowledge to interact with print in order to understand and evaluate the message the author intended. The thinking processes necessary for fluent reading are both deliberate and instinctive. Students need to be able to use semantic, syntactic, and phonemic elements in written language to aid in comprehension.

In grades 4-6 the focus of the reading program shifts from learning to read to reading to learn. The basic goal for these grades is to interact with print to learn about literature and content area material. Inherent in the interaction is the expansion of vocabulary, the development of the ability to evaluate and judge information, and the use of appropriate environmental and study procedures. The focus, however, is on the exploration, enjoyment, and understanding of literature and media rather than on the formal elements of literature.

Writing at grades 4-6 emphasizes fluency and variety as children become aware of more writing options. Writing offers opportunities for self-expression and application of language arts skills.

Viewing is found in each of the previous processes: listening, speaking, reading, and writing. The viewing goals in grades 4-6 are to gather information, to respond to that information, and to communicate to someone else through a variety of media.

Communication throughout the curriculum is the major emphasis in grades 4-6 since learning content and developing communication skills are mutually reinforcing. The unit approach which incorporates the use of communication skills and their integration with all content areas provides excellent opportunities for students to apply skills in meaningful contexts.

Grade 4 Outline

LISTENING

Comprehension

1. Listen attentively.
2. Listen for literal information.
3. Listen to understand implied meaning.
4. Listen to use literal information and implied meaning to think critically.
5. Apply and extend ideas gained from listening.

SPEAKING

Techniques

1. Use appropriate nonverbal language in speaking situations.
2. Control vocal characteristics.
3. Use standard American English.

Social Functions

4. Express feelings and opinions.
5. Ask and answer questions.
6. Engage in problem-solving discussions.

READING

Vocabulary

1. Increase vocabulary to aid in comprehension.
2. Use contextual clues to aid in comprehension.
3. Use word analysis to aid in comprehension.

Comprehension

4. Prepare to read by setting purpose(s) for reading.
5. Gain literal information from the material read.
6. Identify story elements in various types of literature to aid in comprehension.
7. Use information gained from reading, previous knowledge, and personal experiences to understand implied meaning.

8. Use literal information and implied meaning to think critically.
9. Apply and extend ideas gained from reading material.

WRITING

Prewriting

1. Use prewriting as the first step in the writing process.

Drafting

2. Write a first draft based on prewriting experiences.

Revising

3. Revise rough drafts for content clarity.

Editing

4. Edit the revised draft(s) with a focus on conventions: grammar, complete sentences, spelling, usage, capitalization, punctuation, handwriting.

Evaluating

5. Evaluate own writing and that of peers.

Publishing

6. Publish a piece of revised and edited writing.

VIEWING

Comprehension

1. Gain literal information from visuals.
2. Interpret visual information.
3. Use visual information to think critically.

Design Elements

4. Identify design elements that create visual messages.

Production

5. Compose visuals to communicate information in an appropriate medium.

STUDY SKILLS

1. Use book parts to locate information.
2. Use reference materials to obtain information.
3. Use graphic aids to locate and interpret information.

4. Use environmental sources to locate and interpret information.
5. Use study techniques to gain information.

Grade 5 Outline

LISTENING

Comprehension

1. Listen attentively.
2. Listen for literal information.
3. Listen to understand implied meaning.
4. Listen to use literal information and implied meaning to think critically.
5. Apply and extend ideas gained from listening.

SPEAKING

Techniques

1. Use appropriate nonverbal behavior.
2. Control vocal characteristics.
3. Use standard American English.

Social Functions

4. Speak for particular purposes.

READING

Vocabulary

1. Increase vocabulary to aid in comprehension.
2. Use contextual clues to aid in comprehension.
3. Use word analysis to aid in comprehension.

Comprehension

4. Prepare to read by setting purpose(s) for reading.
5. Gain literal information from the material read.
6. Identify story elements in various types of literature to aid in comprehension.
7. Use information gained from reading, previous knowledge, and personal experiences to understand implied meaning.
8. Use literal information and implied meaning to think critically.
9. Apply and extend ideas gained from reading material.

WRITING

Prewriting

1. Use prewriting to generate ideas for writing.

Drafting

2. Write a first draft based on prewriting experiences.

Revising

3. Revise rough drafts for content clarity.

Editing

4. Edit the revised draft(s) with a focus on conventions: grammar, complete sentences, spelling, usage, capitalization, punctuation, handwriting.

Evaluating

5. Evaluate own writing and that of peers.

Publishing

6. Publish a piece of revised and edited writing.

VIEWING

Comprehension

1. Gain literal information from visuals.
2. Interpret information from visuals.
3. Use visual information to think critically.

Design Elements

4. Identify design elements that create visual messages.

Production

5. Compose visuals to communicate information in an appropriate medium.

STUDY SKILLS

1. Use book parts to locate information.
2. Use reference materials to obtain information.
3. Use graphic aids to locate and interpret information.
4. Use environmental sources to locate and interpret information.
5. Use study techniques to gain information.

Grade 6 Outline

LISTENING

Comprehension

1. Listen attentively.
2. Listen for literal information.
3. Listen to understand implied meaning.
4. Listen to use literal information and implied meaning to think critically.
5. Apply and extend ideas gained from listening.

SPEAKING

Techniques

1. Use appropriate nonverbal language in speaking situations.
2. Control vocal characteristics.
3. Use standard American English.

Social Functions

4. Speak for particular purposes.

READING

Vocabulary

1. Increase vocabulary to aid in comprehension.
2. Use contextual clues to aid in comprehension.
3. Use word analysis to aid in comprehension.

Comprehension

4. Prepare to read by setting purpose(s) for reading.
5. Gain literal information from the material read.
6. Identify story elements in various types of literature to aid in comprehension.
7. Use information gained from reading, previous knowledge, and personal experiences to understand implied meaning.
8. Use literal information and implied meaning to think critically.
9. Apply and extend ideas gained from reading material.

WRITING

Prewriting

1. Use prewriting to generate ideas for writing.

Drafting

2. Write a first draft based on prewriting experiences.

Revising

3. Revise rough drafts for content clarity.

Editing

4. Edit the revised draft(s) with a focus on conventions: grammar, complete sentences, spelling, usage, capitalization, punctuation, handwriting.

Evaluating

5. Evaluate own writing and that of peers.

Publishing

6. Publish a piece of revised and edited writing.

VIEWING

Comprehension

1. Gain literal information from viewing.
2. Interpret information from viewing.
3. Use visual information to think critically.

Design Elements

4. Identify design elements that create visual messages.

Production

5. Compose visuals to communicate information in an appropriate medium.

STUDY SKILLS

1. Use book parts to locate information.
2. Use reference materials to obtain information.
3. Use graphic aids to locate and interpret information.
4. Use environmental sources to locate and interpret information.
5. Use study techniques to gain information.

GRADES 7-8

Major Emphases

As in grades 4-6, the grades 7-8 program defines communication skills (reading, writing, speaking, viewing, and listening) as complex interrelated thinking processes, each dependent on the others. It is particularly important at this level for students to use each of the skills in content learning situations. These situations should afford the student opportunities to explore many topics through active reading, writing, speaking, listening, and viewing.

Listening at grades 7-8 is refined, depending on the purpose. The student becomes adept at listening for personal purposes, needs, and interests. An increasing skill in filtering out unnecessary information is developed.

Speaking in grades 7-8 is manifested in many group configurations. A variety of types of speaking situations and audiences are needed for the development of the speaking skills at this level. Panel discussions, debates, and short presentations are important here.

Reading at grades 7-8 focuses primarily on reading to learn. Study skills and study methods are critical. The student also needs to read widely in a variety of types of literature. The goals are to interpret information critically and apply it in new situations. Simple research in the form of short reports is highlighted.

Writing for grades 7-8 focuses on the continued use of the writing process, with experiences, ideas, and research activities supplying the material for using this process. Fluency and the ability to adapt to the use of various modes and forms of writing are hallmarks of this level.

Viewing is inherent in the listening, speaking, reading, and writing processes. Adeptness at viewing for specific purposes and the critical evaluation of media develops at grades 7-8. The student again gathers information and chooses a medium for effectively communicating such information to a given audience.

A formal study of grammar is introduced in grade 7 and continues through grade 8. Students learn best through the purposeful use of language and not through contrived, superficial exercises. Therefore, in order to facilitate this study, teachers should provide learning experiences which stress the practice of grammar and language usage in meaningful contexts that require the integration of oral and written communication skills.

Grade 7 Outline

LISTENING

Comprehension

1. Listen attentively.
2. Listen for literal information.
3. Listen to understand implied meaning.
4. Listen to use literal information and implied meaning to think critically.
5. Apply and extend ideas gained from listening.

SPEAKING

Techniques

1. Use appropriate nonverbal techniques.
2. Control vocal characteristics.
3. Use standard American English.

Social Functions

4. Speak for particular purposes.

READING

Vocabulary

1. Increase vocabulary to aid in comprehension.
2. Use contextual clues to aid in comprehension.
3. Use word analysis to aid in comprehension.

Comprehension

4. Prepare to read by setting purpose(s) for reading.
5. Gain literal information from the material read.
6. Identify story elements in various types of literature to aid in comprehension.
7. Use information gained from reading, previous knowledge, and personal experiences to understand implied meaning.
8. Use literal information and implied meaning to think critically.
9. Apply and extend ideas gained from reading material.

WRITING

Prewriting

1. Use prewriting to generate ideas for writing.

Drafting

2. Write a first draft based on prewriting experiences.

Revising

3. Revise rough drafts for content clarity.

Editing

4. Edit the revised draft(s) with a focus on conventions: grammar, complete sentences, spelling, usage, capitalization, punctuation, handwriting.

Evaluating

5. Evaluate own writing and that of peers.

Publishing

6. Publish a piece of revised and edited writing.

VIEWING

Comprehension

1. Gain literal information from viewing.
2. Interpret information from viewing.
3. Use visual information to think critically.

Design Elements

4. Identify design elements that create visual messages.

Production

5. Compose visuals to communicate information in an appropriate medium.

STUDY SKILLS

1. Use book parts to locate information.
2. Use reference materials to obtain information.
3. Use graphic aids to locate and interpret information.
4. Use environmental sources to locate and interpret information.
5. Use study techniques to gain information.

GRAMMAR

Basic Principles

1. Recognize basic principles of English grammar.
2. Recognize the structure of a simple sentence.
3. Understand the grammatical use of words and their functions in sentences.

Grade 8 Outline

LISTENING

Comprehension

1. Listen attentively.
2. Listen for literal information.
3. Listen to understand implied meaning.
4. Listen to use literal information and implied meaning to think critically.
5. Apply and extend ideas gained from listening.

SPEAKING

Techniques

1. Use appropriate nonverbal language in speaking situations.
2. Demonstrate effective voice control.
3. Use standard American English.

Social Functions

4. Speak for a variety of purposes.

READING

Vocabulary

1. Increase vocabulary to aid in comprehension.
2. Use contextual clues to aid in comprehension.
3. Use word analysis to aid in comprehension.

Comprehension

4. Prepare to read by setting purpose(s) for reading.
5. Gain literal information from the material read.
6. Identify story elements in various types of literature to aid in comprehension.
7. Use information gained from reading, previous knowledge, and personal experiences to understand implied meaning.
8. Use literal information and implied meaning to think critically.
9. Apply and extend ideas gained from reading material.

WRITING

Prewriting

1. Use prewriting to generate ideas for writing.

Drafting

2. Write a first draft based on prewriting experiences.

Revising

3. Revise rough drafts for content clarity.

Editing

4. Edit the revised draft(s) with a focus on conventions: grammar, complete sentences, spelling, usage, capitalization, punctuation, handwriting.

Evaluating

5. Evaluate own writing and that of peers.

Publishing

6. Publish a piece of revised and edited writing.

VIEWING

Comprehension

1. Gain literal information from viewing.
2. Interpret information from viewing.
3. Use visual information to think critically.

Design Elements

4. Identify design elements that create visual messages.

Production

5. Compose visuals to communicate information in an appropriate medium.

STUDY SKILLS

1. Use book parts to locate information.
2. Use reference materials to obtain information.
3. Use graphic aids to locate and interpret information.
4. Use environmental sources to locate and interpret information.
5. Use study techniques to gain information.

GRAMMAR

1. Transform basic sentences.
2. Combine sentences.

GRADES 9-12

Major Emphases

The study of English at grades 9-12 involves students in the reading of various types of literature written by familiar names from the literary past of Western European, American, and world literature and authored by contemporary writers of young adult literature. Students read for comprehension, write expressively and expositionally, listen and view discriminatingly for understanding, and speak clearly and confidently in a wide variety of situations. In addition, students identify different American dialects, recognize historical and cultural influences that continue to change the English language, and develop an understanding of the effects of words on perception and behavior. Students continue to build toward mastery of the intricacies of grammar and language usage through speech and writing. They apply punctuation, capitalization, and spelling skills in writing, rather than in unmeaningful grammatical drills.

The English program is performance-based: it promotes active communication; it builds on and puts into practice accumulated knowledge of earlier grades; it emphasizes conceiving, composing, and evaluating communication in real and imagined situations; and it uses the written and spoken thoughts of others to enrich personal experience.

English I Outline

LISTENING

Comprehension

1. Listen carefully and discriminatingly for literal understanding.
2. Listen carefully and discriminatingly in order to interpret information with understanding.
3. Listen carefully and discriminatingly for critical understanding.

SPEAKING

Techniques

1. Use effective techniques to speak clearly and confidently in a variety of situations.

Social Functions

2. Adapt the content of messages.

LITERATURE/READING/STUDY SKILLS

Types of Literature

1. Recognize and read various types of literature.

Literary Elements

2. Recognize elements of literature.

Language of Literature

3. Recognize literary terms.

Vocabulary

4. Develop essential strategies for increasing reading vocabulary.

Comprehension

5. Gain literal information from literature.
6. Draw inferences from literature.
7. Read literature critically.

Study Skills

8. Locate, organize, and synthesize information from a variety of source materials.
9. Use specific study techniques to gain information.

WRITING

Prewriting

1. Develop writing proficiency through the writing process, beginning with prewriting activities.

Drafting

2. Develop writing proficiency through the writing process by composing first drafts based on prewriting experiences.

Revising

3. Develop writing proficiency through the writing process by revising first and subsequent drafts.

Editing

4. Develop writing proficiency through the writing process by editing revised drafts.

Publishing

5. Develop writing proficiency through the writing process by publishing revised and edited writing.

VIEWING

Comprehension

1. Gain literal information from viewing.
2. Gain interpretive/inferential information from viewing.
3. Gain critical information from viewing.

Design Elements

4. Identify design elements that create visual messages.

Production

5. Compose visual messages in an appropriate medium.

SEMANTICS

1. Recognize the effects of word meanings on perception.
2. Recognize the effects of word meanings on behavior.

English II Outline

LISTENING

Comprehension

1. Listen carefully and discriminatingly for literal understanding.
2. Listen carefully and discriminatingly in order to interpret information with understanding.
3. Listen carefully and discriminatingly for critical understanding.

SPEAKING

Techniques

1. Use effective techniques to speak clearly and confidently in a variety of situations.

Social Functions

2. Adapt the content of messages.
3. Speak persuasively.
4. Participate in group discussions.

LITERATURE/READING/STUDY SKILLS

World Literature

1. Recognize and read various types of world literature.

Young Adult, Biblical, and Shakespearean Literature

2. Recognize and read specific types of literature.

Vocabulary

3. Develop essential strategies for increasing reading vocabulary.

Comprehension

4. Gain literal information from literature.
5 Draw inferences from literature.
6. Read literature critically.

Study Skills

7. Locate, organize, and synthesize information from a variety of source materials.
8. Use specific study techniques to gain information.

WRITING

Prewriting

1. Develop writing proficiency through the writing process, beginning with prewriting activities.

Drafting

2. Develop writing proficiency through the writing process by composing first drafts based on prewriting experiences.

Revising

3. Develop writing proficiency through the writing process by revising first and subsequent drafts.

Editing

4. Develop writing proficiency through the writing process by editing revised drafts.

Publishing

5. Develop writing proficiency through the writing process by publishing revised and edited writing.

VIEWING

Comprehension

1. Gain literal information from viewing.
2. Gain interpretive/inferential information from viewing.
3. Gain critical information from viewing.

Design Elements

4. Identify design elements that create visual messages.

Production

5. Compose visual messages in an appropriate medium.

SEMANTICS

1. Recognize the effects of word meanings on perception and behavior.

DIALECTS

1. Recognize that there are many different English dialects.
2. Recognize factors that influence dialect.

English III Outline

LISTENING

Comprehension

1. Listen carefully and discriminatingly for literal understanding.
2. Listen carefully and discriminatingly in order to interpret information with understanding.
3. Listen carefully and discriminatingly for critical understanding.

SPEAKING

Techniques

1. Use effective techniques to speak clearly and confidently in a variety of situations.

Social Functions

2. Adapt the content of messages.
3. Speak persuasively.
4. Participate in group discussions.

LITERATURE/READING/STUDY SKILLS

American Literature

1. Recognize and read various types of literature by American authors.

Young Adult Literature

2. Recognize and read young adult literature.

Vocabulary

3. Develop essential strategies for increasing reading vocabulary.

Comprehension

4. Gain literal information from literature.
5. Draw inferences from literature.
6. Read literature critically.

Study Skills

7. Locate, organize, and synthesize information from a variety of source materials.
8. Use specific study techniques to gain information.

WRITING

Prewriting

1. Develop writing proficiency through the writing process, beginning with prewriting activities.

Drafting

2. Develop writing proficiency through the writing process by composing first drafts based on prewriting experiences.

Revising

3. Develop writing proficiency through the writing process by revising first and subsequent drafts.

Editing

4. Develop writing proficiency through the writing process by editing revised drafts.

Publishing

5. Develop writing proficiency through the writing process by publishing revised and edited writing.

VIEWING

Comprehension

1. Gain literal information from viewing.
2. Gain interpretive/inferential information from viewing.
3. Gain critical information from viewing.

Design Elements

4. Identify design elements that create visual messages.

Production

5. Compose visual messages in an appropriate medium.

DIALECTS

1. Recognize that there are many different English dialects.
2. Recognize factors that influence dialect.

English IV Outline

LISTENING

Comprehension

1. Listen carefully and discriminatingly for literal understanding.
2. Listen carefully and discriminatingly in order to interpret information with understanding.
3. Listen carefully and discriminatingly for critical understanding.

SPEAKING

Techniques

1. Use effective techniques to speak clearly and confidently in a variety of situations.

Social Functions

2. Adapt the content of messages.
3. Speak persuasively.
4. Participate in group discussions.

LITERATURE/READING/STUDY SKILLS

British Literature

1. Recognize and read various types of literature by British authors.

Young Adult Literature

2. Recognize and read young adult literature.

Vocabulary

3. Develop essential strategies for increasing reading vocabulary.

Comprehension

4 Gain literal information from literature.
5. Draw inferences from literature.
6. Read literature critically.

Study Skills

7. Locate, organize, and synthesize information from a variety of source materials.
8. Use specific study techniques to gain information.

WRITING

Prewriting

1. Develop writing proficiency through the writing process, beginning with prewriting activities.

Drafting

2. Develop writing proficiency through the writing process by composing first drafts based on prewriting experiences.

Revising

3. Develop writing proficiency through the writing process by revising first and subsequent drafts.

Editing

4. Develop writing proficiency through the writing process by editing revised drafts.

Publishing

5. Develop writing proficiency through the writing process by publishing revised and edited writing.

VIEWING

Comprehension

1. Gain literal information from viewing.
2. Gain interpretive-inferential information from viewing.
3. Gain critical information from viewing.

Design Elements

4. Identify design elements that create visual messages.

Production

5. Compose visual messages in an appropriate medium.

HISTORY OF THE ENGLISH LANGUAGE

Influences

1. Recognize historical influences that have contributed to and will continue to contribute to changes in the English language.
2. Recognize cultural influences that have contributed to and will continue to contribute to changes in the English language.

Guidance

GUIDANCE

PURPOSE AND OVERVIEW

Introduction

The guidance section of the competency-based curriculum places priority on the cognitive and affective concerns of student development. This developmental curriculum is presented as a resource and support for all other curricular content areas. Specifically, it is designed to assist all school personnel in meeting the many educational and personal needs of the young people of North Carolina. Any professional person, especially teachers in the classroom, should be able to use this document to respond to the complex world of student development. It may be used with students of all levels of ability and background in helping them move forward through the educational process in a healthy, productive, and enjoyable manner.

The four goals of the competency-based curriculum for guidance are to help students:

1. Demonstrate a positive attitude toward self as a unique and worthy person.

2. Gain life-planning skills that are consistent with needs, interests, and abilities.

3. Develop responsible social skills and an understanding and appreciation of being a contributing member of society.

4. Demonstrate an understanding and appreciation of the life-long process of learning, growing, and changing.

These four goals provide a foundation at each grade level for objectives which define in a specific fashion the essence of each goal statement. There are multiple objectives for each goal at each grade level. Following these objectives are developmental activities that are practical and measurable and can be used by all school personnel in helping teachers and parents meet the four goals of this competency-based curriculum.

Rationale

The world in which young people find themselves is a complex, sometimes confusing, state of affairs. Young people are caught within a massively changing culture where they are exposed to a multitude of trends, values, and ways of living. There are overwhelming cultural influences that appeal to the more undisciplined part of their personalities. We can no longer assume as parents and educators that our young people are going to be free from negative influences which may retard healthy development. We can no longer count on students having a healthy family life, nor can we assume that all their peers will be healthy influences on their lives. However, as we have experienced the political, intellectual, and social events of the last twenty years and have examined research on young people, we have gained a clearer understanding of the developmental tasks associated with the young person. As a result, we have begun to incorporate these discoveries into school programs that meet student needs. As educators and parents, seek new opportunities to better understand, work with, and care for adolescents in our society. This guidance document is dedicated to this endeavor.

Philosophy

The guidance curriculum focuses primarily on the affective and cognitive development of students at all grade levels and is appropriate for all students who are engaged in the educational process in the public schools of North Carolina. The goals of the guidance curriculum, as stated above, are defined within a developmental framework and are presented in a sequential, orderly manner which offers school personnel the opportunity to program developmental education within the structure of the total educational enterprise. Affective developmental education is generally concerned with social roles, coping behaviors, and developmental tasks. These developmental dimensions are a part of the broad educational process which extends from the earliest months of infancy to the declining years of old age. This structure of developmental affective education aids young people in successive approximations of self-understanding and self-management by helping them to evaluate their assets and liabilities in relation to the progressively changing life goals required in societal and vocational endeavors. It is essential that school personnel provide educational programs that enhance and support student progress toward healthy development. In this developmental philosophy, educators respond to the inherent human tendency to move in directions that can be described as growth, health, adjustment, socialization, self-realization, independence, and autonomy. The healthy and full development of the student becomes apparent in her/his expansion of interests, broadening personal relationships, and functioning in school and society in a productive and meaningful manner. To aid students in coping with the rapidly changing world, emphasis is placed upon developing a positive idea of self-worth, developing those skills required to adapt to differing forms of environmental contact, understanding those life-planning skills necessary to make valid decisions, and being made aware that learning does not end with graduation from school, but continues throughout life as an important daily activity designed to better prepare the individual to cope with growth and change.

Below are approximations of the student maturation process described at various grade and age intervals. Descriptions of developmental tasks and coping behaviors are presented to specifically define the developmental philosophy of guidance. While the tasks are sequential, and ordered along the lines of approximation, they should be considered in a broad developmental context as they do not necessarily apply to every child.

Early Childhood (Ages 5-10)

1. Educational/Career Maturation

    a. Develop an understanding of the physical world.
    b. Learn to relate one's self to her/his total environment including the world of work.
    c. Develop conceptual abilities to begin to understand casual relationships.
    d. Cultivate initiative, industry, and the motivation required to learn and to achieve.
    e. Learn to choose activities commensurate with abilities and interests.
    f. Learn about making decisions, recognizing choices, and solving problems.

2. Personal/Emotional Maturation

    a. Achieve an appropriate emotional pattern of dependence/independence.
    b. Achieve a pattern of autonomy and assume responsibility for self.
    c. Develop a positive self-image and a sense of self-identity.
    d. Learn self-control and learn to respond appropriately to emotions.
    e. Develop basic attitudes of trust and confidence.
    f. Understand the need to respect authority.
    g. Establish a personalized set of rules for conduct.
    h. Learn to accept and manage a changing body and to perfect new motor patterns.
    i. Recognize and develop personal abilities and talents.

3. Social Maturation

    a. Adjust to less personal attention from significant adults.
    b. Learn to interact with peers and look to them as well as to adults for identification.
    c. Become more knowledgeable about similarities and differences between the sexes and cultivate a healthy sexual identification.
    d. Build social skills and to relate to changing social groups.
    e. Learn an appropriate giving/receiving pattern of affection.
    f. Learn to be tolerant of people of different races and religions.
    g. Undertake cooperative enterprises.

h. Develop an appropriate symbol system for describing and understanding social and physical reality.

Middle Childhood (Ages 10-14)

1. Educational/Career Maturation

   a. Continue to explore and increase an understanding of the physical world and the world of work.
   b. Examine careers in line with her/his abilities and interests.
   c. Develop further a sense of initiative, industry, and the motivation to learn and to achieve.
   d. Increase the ability to advance from concrete to abstract concepts.
   e. Increase the ability to trace the more general to the specific.
   f. Learn to explain and to clarify more complex concepts.
   g. Incorporate learning into the gestalt of living.
   h. Continue to select activities commensurate with her/his abilities and interests.
   i. Personalize methods of making decisions.
   j. Increase the ability to recognize and solve personal problems.

2. Personal/Emotional Maturation

   a. Increase feelings of autonomy and independence.
   b. Assume responsibility for personal conduct.
   c. Continue the development of a sense of self-identity and positive self-image.
   d. Continue to formulate a set of values and an ethical system which serve as a guide to behavior.
   e. Learn to take charge of the expression of emotions.
   f. Reorganize thoughts and feelings about her/himself in the face of significant body changes.
   g. Accept and manage the results of changing motor patterns.
   h. Understand and cope with sexual development and psychosexual drives.
   i. Further develop her/his unique abilities and talents.

3. Social Maturation

   a. Learn to relate to more varied social groups.
   b. Become more involved in interactions with other people.
   c. Become more aware of roles in interpersonal relationships.
   d. Cultivate an identification with members of the same sex.
   e. Cultivate relationships with members of opposite sex.
   f. Continue to learn tolerance for people of different races and religions.
   g. Refine social skills and achieve socially responsible behavior.
   h. Assume more responsibility at home and school.
   i. Undertake cooperative enterprises.

j. Achieve an appropriate giving/receiving pattern of affection.
k. Refine verbal and written powers of communication.

Adolescence (Ages 14-18)

1. Educational/Career Maturation

a. Continue exploring and understanding the environment and the world of work.
b. Assess needs, interests, capacities, values, and opportunities and apply them when making a career choice.
c. Choose a career commensurate with her/his abilities and interests.
d. Begin preparation for an economic career.
e. Prepare for marriage and family life.
f. Learn to distinguish between reality and fantasy.
g. Achieve a high level of reasoning and learn to make logical conclusions.
h. Further develop personal industry and motivation.
i. Further mature in the ability to make decisions and solve problems.

2. Personal/Emotional Maturation

a. Establish her/himself as an independent individual.
b. Develop a sense of self-identity.
c. Mature in the ability to adjust to the demands of life.
d. Achieve a balance between intimacy and isolation.
e. Acquire a set of values and an ethical system which serve as a guide to behavior.
f. Refine motor patterns.
g. Accept her/his physique.
h. Prepare to accept the role of being a responsible citizen in the community.
i. Continue to recognize and develop her/his personal abilities and talents.

3. Social Maturation

a. Achieve new and more mature relations with peers of both sexes.
b. Learn to build strong mutual bonds with both sexes.
c. Further refine social skills.
d. Work toward achieving a satisfactory role in society.
e. Examine social change as it affects values, morals, attitudes, and beliefs.
f. Cultivate the desire and motivation to exhibit socially responsible behavior.
g. Be understanding and tolerant of human behavior.
h. Develop an understanding of parents' and other adult's views.
i. Improve her/his verbal and written powers of communication.

LEARNING OUTCOMES

The anticipated learning outcomes in grades K-12 are such that a student will demonstrate:

1. A positive attitude toward self as a unique and worthy person.

2. Life-planning skills that are consistent with her/his needs, interests, and abilities.

3. Responsible social skills and an understanding of being a contributing member of society.

4. An appreciation and understanding of the lifelong process of learning, growing, and changing.

GRADES K-3

Major Emphases

The major emphases for students in grades K-3 will be to conceptualize, verbalize, and understand personal attitudes, feelings, and behavior. Students will develop an awareness of and exposure to the diverse world of work in relation to their interests and skills. They will understand their role in group processes. This includes self-discipline, following directions, and exhibiting interpersonal relationships in the family, school, and community. Emphasis will also be placed on self-control, individual effort, study skills, and the value of the learning process.

Grade K Outline

1. The learner will demonstrate a positive attitude toward self as a unique and worthy person by being able to:

    1.1 Describe how s/he is alike as well as different from others.
    1.2 Verbalize a personal trait or behavior that s/he likes about self.
    1.3 Recognize words that express feelings.

2. The learner will demonstrate life-planning skills that are consistent with needs, interests, and abilities by being able to:

    2.1 Recognize the diverse world of work.

3. The learner will demonstrate responsible social skills and an understanding and application of being a contributing member of society by being able to:

    3.1 Learn the rules for participating in group discussion.
    3.2 Demonstrate knowledge of the importance of following rules for group discussion.
    3.3 Learn effective listening skills.
    3.4 Recognize the importance of working together in a group.

4. The learner will demonstrate an appreciation and understanding of the lifelong process of learning, growing, and changing by being able to:

    4.1 Adjust to the school environment.
    4.2 Recognize the importance of self-control.
    4.3 Understand the importance of good health needs.

Grade 1 Outline

1. The learner will demonstrate a positive attitude toward self as a unique and worthy person by being able to:

    1.1 Describe how s/he is alike as well as different from others.
    1.2 Verbalize a personal trait or behavior that s/he likes about self.
    1.3 Recognize words that express feelings.
    1.4 Recognize that strengths and weaknesses are human characteristics.

2. The learner will demonstrate life-planning skills that are consistent with needs, interests, and abilities by being able to:

    2.1 Recognize that the world of work is diverse.

3. The learner will demonstrate responsible social skills and an understanding and application of being a contributing member of society by being able to:

    3.1 Learn the rules for participating in group discussion.
    3.2 Demonstrate knowledge of the importance of following rules for group discussion.
    3.3 Learn effective listening skills.
    3.4 Recognize the importance of working together in a group.

4. The learner will demonstrate an appreciation and understanding of the lifelong process of learning, growing, and changing by being able to:

    4.1 Adjust to the school environment.
    4.2 Recognize the importance of self-control and individual responsibility.
    4.3 Demonstrate knowledge of the importance of learning.

Grade 2 Outline

1. The learner will demonstrate a positive attitude toward self as a unique and worthy person by being able to:

   1.1 Discuss and share feelings about self.
   1.2 Discuss situations that cause a variety of behaviors.

2. The learner will demonstrate life-planning skills that are consistent with needs, interests, and abilities by being able to:

   2.1 Recognize the diverse world of work.
   2.2 Describe ways that basic skills are used at home and at work.
   2.3 Understand how s/he relies on basic skills to satisfy needs.

3. The learner will demonstrate responsible social skills and an understanding and application of being a contributing member of society by being able to:

   3.1 Demonstrate the ability to share and work cooperatively on group tasks.
   3.2 Learn how to develop effective interpersonal relationships.
   3.3 Demonstrate the capacity to follow instructions and complete assignments.

4. The learner will demonstrate an appreciation and understanding of the lifelong process of learning, growing, and changing by being able to:

   4.1 Demonstrate knowledge of the importance of learning.
   4.2 Demonstrate the ability to work independently.
   4.3 Demonstrate the capacity to follow instructions and complete assignments.

Grade 3 Outline

1. The learner will demonstrate a positive attitude toward self as a unique and worthy person by being able to:

   1.1 Discuss and share feelings about her/himself.
   1.2 Discuss situations that cause a variety of different behaviors.

2. The learner will demonstrate life-planning skills that are consistent with needs, interests, and abilities by being able to:

   2.1 Recognize the diverse world of work.
   2.2 Describe ways that basic skills are used at home and at work.
   2.3 Understand how s/he relies on basic skills.

3. The learner will demonstrate responsible social skills and an understanding and application of being a contributing member of society by being able to:

    3.1 Demonstrate the ability to share and work cooperatively on group tasks.
    3.2 Develop effective interpersonal relationships.

4. The learner will demonstrate an appreciation and understanding of the lifelong process of learning, growing, and changing by being able to:

    4.1 Describe the relationship between effort and learning.
    4.2 Demonstrate the ability to work independently.
    4.3 Demonstrate the capacity to follow instructions and complete assignments.
    4.4 Draw conclusions from a variety of sources and explain the rationale for the conclusions.

GRADES 4-6

Major Emphases

Major emphases for students in grades 4-6 will be to expand the understanding of self and the effects of individual behaviors and attitudes on others. They will explore individual skills and interests in relation to the world of work as well as the effective use of leisure time. Emphasis will also be placed on the skills necessary for students to interact with each other. Students will be able to demonstrate an awareness that all persons have a need to belong and be accepted. Further emphasis will be placed on the exploration of the concept of lifelong learning. Also, the realities of success and failure as a part of the growing process will be introduced.

Grade 4 Outline

1. The learner will demonstrate a positive attitude toward self as a unique and worthy person by being able to:

    1.1 Define and discuss the meaning of self-concept.
    1.2 Describe how understanding differences among people helps one understand her/himself.

2. The learner will demonstrate life-planning skills that are consistent with needs, interests, and abilities by being able to:

    2.1 Describe workers in terms of the work performed.
    2.2 Evaluate the importance of familiar jobs in the community.

3. The learner will demonstrate responsible social skills and an understanding and application of being a contributing member of society by being able to:

    3.1 Develop effective interpersonal relationships.
    3.2 Show understanding of self-discipline and responsibility as important characteristics of citizenship.
    3.3 Define her/his own citizenship responsibilities within the family, school, and community.

4. The learner will demonstrate an appreciation and understanding of the lifelong process of learning, growing, and changing by being able to:

    4.1 Distinguish between fact and opinion.

Grade 5 Outline

1. The learner will demonstrate a positive attitude toward self as a unique and worthy person by being able to:

    1.1 Define and discuss the meaning of self-concept.
    1.2 Demonstrate the influencing factors in developing as a unique person.

2. The learner will demonstrate life-planning skills that are consistent with needs, interests, and abilities by being able to:

    2.1 Evaluate the way that familiar jobs contribute to the needs of society.
    2.2 Compare her/his school interests and skills to familiar jobs.
    2.3 Evaluate the way use of leisure time contributes to the development of job skills.

3. The learner will demonstrate responsible social skills and an understanding and application of being a contributing member of society by being able to:

    3.1 Demonstrate competencies and skills for interacting with others.
    3.2 Demonstrate an awareness that all persons have the need to belong and be accepted by others.

4. The learner will demonstrate an appreciation and understanding of the lifelong process of learning, growing, and changing by being able to:

    4.1 Describe how success and failure are a normal part of life and learning.
    4.2 Discuss the "meaning" of lifelong learning.

Grade 6 Outline

1. The learner will demonstrate a positive attitude toward self as a unique and worthy person by being able to:

    1.1 Discuss how one's behavior influences the feelings and actions of others.
    1.2 Demonstrate skills for improving one's attitude toward self and others.

2. The learner will demonstrate life-planning skills that are consistent with needs, interests, and abilities by being able to:

    2.1 Understand the importance of planning and preparing for her/his future in the world of work.
    2.2 Discuss the variety and complexity of occupations and jobs.

3. The learner will demonstrate responsible social skills and an understanding and application of being a contributing member of society by being able to:

    3.1 Demonstrate competencies and skills for interacting with others.
    3.2 Demonstrate an awareness that all persons have the need to belong and to be accepted by others.
    3.3 Demonstrate skill in being responsible for own behavior.
    3.4 Understand the physical maturation processes and responsible decision-making.

4. The learner will demonstrate an appreciation and understanding of the lifelong process of learning, growing, and changing by being able to:

    4.1 Describe how successes and failures are a normal part of life and learning.
    4.2 Describe the factors that influence the need for lifelong learning.
    4.3 Distinguish between fact and opinion.

GRADES 7-8

Major Emphases

The major emphases for students in grades 7-8 will be on their ability to demonstrate positive feelings about themselves and others, to express assertive behaviors, and to understand their personal abilities, interests, and aptitudes. These students will explore the world of work while developing problem-solving and decision-making skills that will assist them in setting realistic educational and vocational goals. Emphasis will be placed on appropriate interaction skills and the demonstration of effective communication skills.

Students will exhibit an awareness of others' feelings and opinions while showing confidence in their own belief system. They will understand the changes of adolescence and the skills necessary to cope with them. Emphasis will also be placed on establishing a foundation for the lifelong process of change and on understanding the need for lifelong planning.

Grade 7 Outline

1. The learner will demonstrate a positive attitude toward self as a unique and worthy person by being able to:

    1.1 Realize the importance of building self-confidence.
    1.2 Give and receive positive comments.
    1.3 Identify a way that s/he is unique, and give positive statements about that uniqueness.
    1.4 Respond to criticism without being devastated.
    1.5 Demonstrate assertive behavior (i.e., how to say "no" to peers).
    1.6 Recognize that planning and organization contribute to success.

2. The learner will demonstrate life-planning skills that are consistent with needs, interests, and abilities by being able to:

    2.1 Demonstrate a knowledge of the world of work.
    2.2 Demonstrate skills in making educational decisions and choosing alternatives in planning for life goals.
    2.3 Demonstrate the decision-making processes.
    2.4 Be aware of the many decisions s/he makes daily.
    2.5 Be aware that all decisions are not clear-cut (right/wrong, good/bad).

3. The learner will demonstrate responsible social skills and an understanding and application of being a contributing member of society by being able to:

    3.1 Demonstrate a knowledge of verbal and nonverbal communication (positive and negative).
    3.2 Demonstrate an awareness of alternative points of view.
    3.3 Discuss/identify the kinds of activities/events that cause stress and conflict.
    3.4 Demonstrate being responsible in a group.
    3.5 Identify alternatives when peer pressures are in conflict with her/his own value system.
    3.6 Develop appropriate same gender and opposite gender friendships.
    3.7 Demonstrate an awareness of interdependence.

4. The learner will demonstrate an appreciation and understanding of the lifelong process of learning, growing, and changing by being able to:

    4.1 Recognize that a changing world demands lifelong learning and planning.
    4.2 Demonstrate an understanding of the importance of utilizing leisure time for fulfilling needs and aspirations.
    4.3 Recognize that physiological changes are a natural part of adolescence.
    4.4 Recognize the importance of emotional growth and how emotions affect behavior.
    4.5 Deal with some disturbing feelings that have been bothering her/him.

Grade 8 Outline

1. The learner will demonstrate a positive attitude toward self as a unique and worthy person by being able to:

    1.1 Analyze her/his interests, abilities, and aptitudes as components of personal uniqueness.
    1.2 Identify three careers which relate to her/his interests, abilities, and/or aptitudes.
    1.3 Demonstrate the ability to deal appropriately with emotions.
    1.4 Demonstrate a knowledge of constructive methods of coping with stress.
    1.5 Demonstrate ways of practicing self-discipline and to explain why self-discipline is valuable.

2. The learner will demonstrate life-planning skills that are consistent with needs, interests, and abilities by being able to:

    2.1 Make course selections that are appropriate for life goals and interests.
    2.2 Demonstrate skills for locating, evaluating, and interpreting information about vocational and career opportunities.
    2.3 Accept responsibility for making decisions and face the consequences.
    2.4 Become aware of strengths and weaknesses, both academic and nonacademic.
    2.5 Demonstrate the ability to state goals for the near future.

3. The learner will demonstrate responsible social skills and an understanding and application of being a contributing member of society by being able to:

    3.1 Demonstrate an awareness of life styles.
    3.2 Recognize the value of affirming the positive qualities of other people.
    3.3 Demonstrate an awareness of the negative aspects of cliques.
    3.4 Become more aware of social issues.

4. The learner will demonstrate an appreciation and understanding of the lifelong process of learning, growing, and changing by being able to:

    4.1 Become realistic about the consequences of her/his actions.
    4.2 Recognize that misfortunes occur and that misfortunes require coping skills.
    4.3 Demonstrate awareness of natural biological changes and how they affect her/his emotional and physical growth.
    4.4 Distinguish between fact and opinion.

GRADES 9-12

Major Emphases

The major emphases for students in grades 9-12 will stress the need for awareness that one's strengths and weaknesses are essential to future success. Students should be able to identify and utilize their strengths as well as deal with their weaknesses. The educational and career decisions expected of these students will require them to demonstrate an understanding and mastery of life-planning skills that reflect their needs, interests, and abilities. Emphasis will be placed on the way students perceive their present and potential roles as contributing members of society. In this societal setting, students will learn the skills necessary for living and working in harmony with others. Attention will also be focused on the students' ability to develop and apply a personal philosophy of life that encompasses the need for adaptability and flexibility.

Grade 9 Outline

1. The learner will demonstrate a positive attitude toward self as a unique and worthy person by being able to:

    1.1 Verbalize personal traits/behaviors that s/he likes about self.
    1.2 Describe a situation that had a positive effect on her/him.
    1.3 Identify sources of positive feelings about self.

2. The learner will demonstrate life-planning skills that are consistent with needs, interests, and abilities by being able to:

    2.1 Demonstrate decision-making skills.
    2.2 Be aware that life planning requires many choices.

3. The learner will demonstrate responsible social skills and an understanding and application of being a contributing member of society by being able to:

    3.1 Discuss/assess responsibility for individual actions.
    3.2 Recognize the significant contributions others have made to society.

4. The learner will demonstrate an appreciation and understanding of the lifelong process of learning, growing, and changing by being able to:

    4.1 Focus on possible changes that occur during a given time span.
    4.2 Examine personal attitudes, beliefs, and values when those attitudes, beliefs, and values may be in conflict with others.
    4.3 Compare personal characteristics to those favorable for success in the work force.
    4.4 Apply inductive and deductive reasoning.
    4.5 Draw reasonable conclusions from information found in various sources--whether written or spoken, tabular or graphic--and defend those conclusions rationally.

Grade 10 Outline

1. The learner will demonstrate a positive attitude toward self as a unique and worthy person by being able to:

    1.1 Describe her/himself in positive terms.
    1.2 Focus on and analyze personal weaknesses and develop plans to improve her/himself.

2. The learner will demonstrate life-planning skills that are consistent with needs, interests, and abilities by being able to:

    2.1 Focus on the kinds of decisions that will need to be made in the near future.
    2.2 Discuss and assess needs, interests, abilities, and opportunities as applied to career choice.

3. The learner will demonstrate responsible social skills and an understanding and application of being a contributing member of society by being able to:

    3.1 Understand the value of positive interaction in promoting relationships.
    3.2 Understand why living in a society creates the need for interdependence and cooperation.

4. The learner will demonstrate an appreciation and understanding of the lifelong process of learning, growing, and changing by being able to:

    4.1 Appreciate the complexity of society.
    4.2 Understand that the learning process extends beyond the school environment.
    4.3 Recognize inductive and deductive reasoning techniques as applied to practical, personal, and school problems.

Grade 11 Outline

1. The learner will demonstrate a positive attitude toward self as a unique and worthy person by being able to:

   1.1 Relate her/his personal characteristics/attributes to those characteristics/attributes favorable for success.

2. The learner will demonstrate life-planning skills that are consistent with needs, interests, and abilities by being able to:

   2.1 Utilize skills needed for effective living after high school.
   2.2 Develop with confidence plans for managing her/his life after high school.

3. The learner will demonstrate responsible social skills and an understanding and application of being a contributing member of society by being able to:

   3.1 Realize that other people may perceive things differently than s/he does.
   3.2 Understand what group dynamics and relationships mean in a work setting.
   3.3 Recognize the ways in which all occupations contribute to society through the production of goods or the providing of services.
   3.4 Examine personal values and work ethics in terms of job success.
   3.5 Identify various leadership styles and evaluate their effectiveness.

4. The learner will demonstrate an appreciation and understanding of the lifelong process of learning, growing, and changing by being able to:

   4.1 Accept and understand the concept that her/his personal and career development are continuously influenced by her/his failures, successes, and life experiences.
   4.2 Demonstrate an awareness that certain personal attributes are subject to change through maturation or experience.

Grade 12 Outline

1. The learner will demonstrate a positive attitude toward self as a unique and worthy person by being able to:

   1.1 Substitute a new positive thought for an old negative thought that has been blocking her/his progress.

2. The learner will demonstrate life-planning skills that are consistent with needs, interests, and abilities by being able to:

    2.1 Demonstrate life-planning skills which reflect the existence and appreciation of individual differences.
    2.2 Make appropriate plans for her/himself which are consistent with her/his correct interpretation of data.
    2.3 Understand and utilize a performance appraisal to assess personal potential for employment, advancement, retention, and pay raises.

3. The learner will demonstrate responsible social skills and an understanding and application of being a contributing member of society by being able to:

    3.1 Understand the chain of command and grievance procedures in a work setting.
    3.2 Recognize the importance of planning leisure time in direct response to individual needs, interests, and abilities.
    3.3 Recognize the correlation between modified job activity and the need for planned leisure time.

4. The learner will demonstrate an appreciation and understanding of the lifelong process of learning, growing, and changing by being able to:

    4.1 Recognize that her/his working life will extend into the future.
    4.2 Recognize possible changes which may take place in the job market and society during the span of her/his years of employment.
    4.3 Recognize the correlation between occupational stress and emotional well-being.
    4.4 Demonstrate an understanding that quality leisure time is more than just the absence of work.
    4.5 Examine nontraditional job opportunities, changing lifestyle patterns, and societal commitment to equity in employment.
    4.6 Analyze the traditional and emerging career patterns for men, women, minorities, and the handicapped.
    4.7 Clarify personal perceptions about gender roles.
    4.8 Be aware that there are constructive ways to handle discouragement, loss, and failure.
    4.9 Be aware of emotionally healthful habits which could be substituted for human substance dependency.
    4.10 Develop/clarify her/his philosophy of life.
    4.11 Analyze procedures for changing employment.

Healthful Living

HEALTHFUL LIVING EDUCATION

Healthful Living Education, an important and necessary area for the comprehensive education of youth in the public schools, consists of teaching and learning in health education, physical education, and safety education. The broad goal of Healthful Living Education is to enrich the quality of life by educating individuals so that they can become competent in movement skills and can live a full, safe, and active life.

To prepare all students to meet the demands of everyday living, appropriate broad program goals and objectives have been identified and incorporated into a planned, sequential program of instruction in grades K-12. The attached abstracts identify the goals and related learning objectives for health education, physical education, and safety education. Scope and sequence, major emphases, and grade level course outlines are described as well.

HEALTH EDUCATION

PURPOSE AND OVERVIEW

The purpose of health education is to enhance the quality of life of individuals by enabling them to meet their needs in the healthiest ways available.

Few of us live in order to be healthy; rather, we use our health to facilitate meeting those needs that we all have in common, e.g., needs for shelter, sustenance, acceptance, security, affection, exploration, and tranquility. Health is an instrument, not a goal. Correspondingly, the roles of health education are to:

- inform us sufficiently so that we do not, in ignorance, take risks with our health
- help us cherish the instrumental value of our health so that we don't jeopardize it
- teach us the skills necessary to locate and use healthful means of meeting our needs

Health is defined as the state of complete mental, physical, and social well-being, not merely the absence of disease or infirmity. We know now that these aspects of health are totally interdependent and that all are influenced by genetic, learned, and environmental factors; thus, a successful health education curriculum must similarly encompass all aspects of life and the "whole" human being.

Health once was determined mainly by fate until it became the province of those select few who had expertise in sanitation, nutrition, immunization, and the use of diagnostic procedures, surgery, and medicines. Today health is our personal responsibility for we cause more than half of our modern health problems chiefly by the lifestyles we choose. Therefore, the health curriculum, while not ignoring the still-valuable health knowledge learned in the past, must now focus on contemporary behavior patterns as the source of contemporary health problems.

At the age when students leave public schools, the leading causes of death are traffic and other accidents (the majority of which involve alcohol or other drug use), homicide (also involving alcohol use), and suicide. As these students age, cardiovascular problems and cancer, along with accidents, become the major health problems. All of these are, in good part, lifestyle or behavior-induced health problems. Therefore, the school curriculum in health must cumulatively develop skills in such areas as lifestyle decision-making, stress management, productive problem-solving, handling emotions, goal-setting, and interpersonal relations. It is here that health education can have an impact on health problems.

Of course, death is but one aspect of health/illness. Social health indicators in such areas as divorce, child abuse, domestic violence, and drug and alcohol abuse demonstrate the curricular need for lifestyle and behavior management skills with an emphasis on personal responsibility.

Finally, the fact that our society can barely afford ever-escalating costs of treating our self-generated illnesses illustrates the direction a health curriculum must pursue if it is to serve the economic needs of our society as well as the personal needs of individuals.

Broad Goals

The broad goals of health education dictate the variety of subject matter that must be incorporated into an effective health curriculum. To accomplish the purpose of health education, each student in accordance with her/his needs and abilities will:

- accept responsibility for her/his own health

- be aware of the positive and negative determinants of individual health status--including social factors, environmental factors, psychological factors, genetic factors, and personal lifestyles

- accept the instrumental value of good health (the relationship of individual health status to the achievement of life goals and the fulfillment of human needs)
- be aware of major individual and public health problems and health issues (causes and potential solutions)
- be aware of health problems of select demographic groups
- develop the decision-making, problem-solving, communication, and interpersonal skills necessary to develop a healthy lifestyle
- understand the relationships between health and the major structures and functions of the human body
- be aware of the relationships between health status and the major needs, sources of stress, and developmental characteristics of people throughout the human life cycle
- be aware of career opportunities in health fields
- be skilled in basic first aid
- function skillfully as a consumer of health-related products, resources, and services

COURSE OF STUDY

The affective and behavioral objectives of health education do not readily lend themselves to a specific plan of scope and sequence because so many variables other than in-school education influence their development and because their demonstration depends heavily on unpredictable opportunity. However, the suggested cognitive scope and sequence is as follows:

Instructional Areas	K	1	2	3	4	5	6	7	8	9-12*
Mental Health	X	X	X	X	X	X	X	X	X	X
Environmental Health							X			
Nutrition	X	X	X	X	X	X	X	X	X	X
Chemicals & Substance Abuse	X	X	X	X	X	X	X	X		X
Consumer Health		X			X	X	X	X	X	X
Dental Health	X	X	X	X	X	X	X			
Safety/First Aid	X	X	X	X	X	X	X	X	X	X
Family Life	X	X	X	X	X	X	X	X	X	X
Communicable Diseases		X	X					X		
Chronic Diseases						X				X
Growth & Development	X	X	X	X	X	X	X			

* In partial fulfillment of unit of credit required for high school graduation.

LEARNING OUTCOMES

Health education has learning objectives in three main areas: cognitive, affective, and behavioral.

Cognitive objectives include developing students' knowledge in the areas of mental health, consumer health, nutrition, chemicals and substance abuse, communicable diseases, family living, growth and development, dental health, safety, acute and chronic diseases, environmental health, and health careers.

Affective objectives include developing students' self-concepts, enhancing attitudes toward the value of health, and accepting personal responsibility for maintaining and promoting health.

Behavioral objectives include demonstrating behavior self-modification skills, demonstrating responsibility for the health of oneself and others, demonstrating effective decision-making, and demonstrating success in identifying and meeting one's own needs.

GRADES K-3

Major Emphases

Some of the major emphases of K-3 health education are: (1) learning about our own bodies--what the parts are, what they do, and why our bodies are important to us; (2) becoming aware of feelings, what they are called, and accepting their existence; (3) understanding relationships with, and responsibilities to, other people, especially families and classmates; (4) comprehending what illness is and understanding that illness has causes and can often be prevented; (5) learning to deal with some of the most basic determinants of health and illness, e.g., nutrition, rest, exercise, sleep, safety, disease-causing organisms; (6) understanding that each person's behavior is related to her or her own health; (7) assuming a portion of the responsibility for one's own health and safety; and (8) recognizing that healthful living contributes to a satisfying life.

Grade K Outline

1. Mental Health

    1.1 Recognizing own unique qualities
    1.2 Valuing one's own worth

2. Nutrition

    2.1 Relationship of food to health, growth, energy, feelings
    2.2 Differentiating between healthful and unhealthful foods

3. Chemicals and Substance Abuse

    3.1 Avoiding accidental poisoning
    3.2 Identifying warning signs and symbols
    3.3 Distinguishing foods from non-foods, medicines from other chemicals
    3.4 Safe storage of chemicals

4. Dental Health

    4.1 The uses of teeth
    4.2 Importance of teeth
    4.3 Keeping teeth healthy

5. Safety/First Aid

    5.1 Safe places to play
    5.2 Playing safely with things
    5.3 Safe storage of toys

6. Family Life

    6.1 Responsibilities of family members
    6.2 How family members help each other
    6.3 Sharing in a family
    6.4 Contributing to family harmony

7. Growth and Development

    7.1 Names of the major body parts

Grade 1 Outline

1. Mental Health

    1.1 Valuing own worth
    1.2 Being aware of similarities between self and others
    1.3 Recognizing own abilities

2. Nutrition

    2.1 Knowing a variety of foods
    2.2 Types of fruit, vegetables, animal products
    2.3 Using senses to identify foods
    2.4 Types of dairy products

3. Chemical and Substance Abuse

    3.1 Poisonous household items
    3.2 Knowing "warning" words

- 3.3 Poisonous plants
- 3.4 Effects of poisons on various body parts
- 3.5 Safe handling of poisons and unknown substances

4. Consumer Health

   - 4.1 Purposes of advertisements
   - 4.2 Common sales techniques

5. Dental Health

   - 5.1 Flossing
   - 5.2 Using fluoride mouthrinse
   - 5.3 Toothbrushing

6. Safety/First Aid

   - 6.1 Safety hazards in and around the home
   - 6.2 Safe use of school materials
   - 6.3 Matches and electricity

7. Family Life

   - 7.1 Variations in family composition and size
   - 7.2 Roles of various family members
   - 7.3 Family bonds

8. Communicable Diseases

   - 8.1 Differences between wellness and illness
   - 8.2 Feelings, appearance, and actions of well people

9. Growth and Development

   - 9.1 Names and general functions of major body parts and systems
   - 9.2 Names and uses of the senses

Grade 2 Outline

1. Mental Health

   - 1.1 Importance of good relationships with others
   - 1.2 Respecting rights and property of others
   - 1.3 Respecting the self-concept of others
   - 1.4 Valuing cooperation
   - 1.5 Respecting feelings of others

2. Nutrition

   - 2.1 Eating a variety of foods
   - 2.2 Five food groups

    - 2.3 Use of food groups in daily food choices
    - 2.4 Problems of fats and sweets

3. Chemicals and Substance Abuse

    - 3.1 Being aware of abused substances and their harm
    - 3.2 Habit-forming substances

4. Dental Health

    - 4.1 Plaque
    - 4.2 Effect of sugar on teeth
    - 4.3 Sugar-free snacks

5. Safety/First Aid

    - 5.1 Whom to contact in emergencies
    - 5.2 What to do in emergencies
    - 5.3 Crossing streets safely

6. Family Life

    - 6.1 How each family member contributes to family well-being

7. Communicable Diseases

    - 7.1 How diseases are transmitted
    - 7.2 Preventing disease spread
    - 7.3 Minimizing illness symptoms

8. Growth and Development

    - 8.1 Why the senses are important

Grade 3 Outline

1. Mental Health

    - 1.1 Awareness of feelings
    - 1.2 Identifying feelings
    - 1.3 How feelings and behaviors influence each other
    - 1.4 Changing feelings constructively

2. Nutrition

    - 2.1 Six classes of nutrients
    - 2.2 Influence of nutrients on health
    - 2.3 Sources of nutrients

3. Chemicals and Substance Abuse

    3.1 Trustworthy sources of medicines and drugs
    3.2 Trustworthy sources of information about medicines and drugs
    3.3 Safe and harmful uses of medicines

4. Dental Health

    4.1 Preventing dental injuries

5. Safety/First Aid

    5.1 Vehicle passenger safety practices
    5.2 Safely exiting vehicles in an emergency
    5.3 Being considerate of vehicle drivers

6. Family Life

    6.1 Understanding that all living things reproduce

7. Growth and Development

    7.1 Awareness of growth changes
    7.2 Individual differences in growth rates and patterns
    7.3 Factors that affect growth

GRADES 4-6

Major Emphases

Some of the major emphases of grades 4-6 health education are: (1) learning how the body and its parts work; (2) understanding how the body changes through growth and development; (3) comprehending that the development and functioning of the body and mind can be influenced by positive and negative factors, e.g., personal health practices, environmental conditions, intake of chemicals, diseases; (4) practicing some of the elements of health-related decision-making, e.g., clarifying one's own values, identifying alternative forms of behavior, projecting consequences of various forms of behavior; (5) identifying some of the influences on human behavior, e.g., human needs, emotions, and interpersonal relationships, and finding healthy ways to handle these influences; (6) recognizing the responsibilities that each of us has in maintaining our own health and the health of the community in which we live; (7) learning to evaluate health-related information, products, and services; and (8) developing an awareness of the human life cycle and its relationship to our health and growth.

Grade 4 Outline

1. Mental Health

   1.1 Looking at oneself realistically
   1.2 Personal strengths and weaknesses
   1.3 Setting personal change goals

2. Nutrition

   2.1 Selecting foods that meet body nutrient needs
   2.2 Food package labels as sources of nutritional information
   2.3 Nutritional values of foods produced in North Carolina

3. Chemicals and Substance Abuse

   3.1 Misuse of health-related products
   3.2 Effects of tobacco on the body
   3.3 Meanings of "dependence," "addiction," and "withdrawal"
   3.4 Influences on the decision to use tobacco.
   3.5 Awareness of own feelings about tobacco use

4. Consumer Health

   4.1 Differences between commercial and professional health information
   4.2 Distinguishing between health-promoting and cosmetic products

5. Dental Health

   5.1 Importance of dental hygiene
   5.2 Consequences of poor dental hygiene

6. Safety/First Aid

   6.1 Proper reporting of emergencies

7. Family Life

   7.1 Awareness of attitudes toward the family
   7.2 Roles in the family, changes and choices

8. Growth and Development

   8.1 Degree of and limits on personal control over own growth and development

Grade 5 Outline

1. Mental Health

   1.1 Stereotyping
   1.2 Qualities that make good friends
   1.3 Courtesy
   1.4 Dealing with praise and criticism
   1.5 Identifying desirable changes in one's own behavior

2. Nutrition

   2.1 Factors that influence food choices

3. Chemicals and Substance Abuse

   3.1 Short and long-term effects of alcohol use
   3.2 Factors influencing alcohol effects
   3.3 Alcohol's effect on judgment
   3.4 Healthy alternatives to reasons for drinking alcohol

4. Consumer Health

   4.1 Selecting reliable sources of information
   4.2 Consequences of inaccurate or incomplete information in decision-making
   4.3 Common inaccurate health beliefs

5. Dental Health

   5.1 Daily dental health practices
   5.2 Plaque and gum disease
   5.3 Foods hazardous to teeth

6. Safety/First Aid

   6.1 Safe school environment
   6.2 Causes of fires

7. Family Life

   7.1 Physical, mental, and emotional maturation
   7.2 Puberty
   7.3 Human reproductive system

8. Chronic Diseases

   8.1 Behavioral causes of various diseases
   8.2 Prevention and treatment
   8.3 Early warning signs of cancer

9. Growth and Development

    9.1 Structure and function of circulatory, digestive, and skeletal systems

Grade 6 Outline

1. Mental Health

    1.1 Awareness of emotions
    1.2 Coping with emotional stress

2. Environmental Health

    2.1 How people affect the environment
    2.2 Coping with emotional stress

3. Nutrition

    3.1 Weight management
    3.2 Composition of body tissue
    3.3 World food problems

4. Chemicals and Substance Abuse

    4.1 Classifications of drugs
    4.2 Control of drugs
    4.3 Cultural and historical context of drug use
    4.4 Drug tolerance
    4.5 Unpredictability of drug effects
    4.6 Decision-making steps and drug use

5. Consumer Health

    5.1 Personal health responsibilities
    5.2 Responsibility for the health of others

6. Dental Health

    6.1 Using dental health services

7. Safety/First Aid

    7.1 Basic first aid (shock, bleeding, burns, choking, fractures)

8. Family Life

    8.1 Masculinity and femininity
    8.2 Social roles and changing expectations

9. Growth and Development

    9.1 Physical and emotional changes associated with puberty

GRADES 7-8

Major Emphases

Some of the major emphases in grades 7-8 are: (1) accepting personal responsibility for health-related decisions and their consequences; (2) learning interpersonal skills that will promote healthy relationships with others; (3) maintaining a positive identity during the transition between childhood and adulthood; (4) understanding the nature and reasons for the rapid physical and sexual changes taking place; (5) learning specific first-aid skills; (6) understanding some potential health-related problems of the teen years, e.g., sexually-transmitted diseases, drug, alcohol, and tobacco abuse, stress, nutritional habits, sexual behavior, and (7) selecting life goals and life-styles compatible with these goals.

Grade 7 Outline

1. Mental Health

    1.1 Demonstrating communication skills (body language, objective summarizing and paraphrasing, clarifying, maintaining a conversation, responding to feelings, stating feelings, assertiveness)
    1.2 Group decision-making
    1.3 Constructive problem-solving

2. Nutrition

    2.1 Classes of nutrients
    2.2 Functions and sources of nutrients
    2.3 Food groups and meal planning

3. Chemicals and Substance Abuse

    3.1 Classifications of illegal or harmful drugs
    3.2 Drug effects
    3.3 Responsibility in drug and alcohol decisions
    3.4 Saying "no" assertively

4. Consumer Health

    4.1 Factors influencing purchasing decisions
    4.2 Differentiating between professional and nonprofessional medical treatment and information
    4.3 Disadvantages of unproven health products and services

5. Safety/First Aid

    5.1 Home accident prevention

6. Family Life

    6.1 Influences on sexual attitudes
    6.2 Getting along with the opposite sex

7. Communicable Diseases

    7.1 Influences on the occurrence and severity of communicable diseases
    7.2 Sexually-transmitted diseases
    7.3 Treatment services available to individuals with sexually-transmitted diseases

Grade 8 Outline

1. Mental Health

    1.1 Appreciating own attributes
    1.2 Goal-achievement skills
    1.3 Defense mechanisms
    1.4 Dangerous behavior resulting from emotions

2. Nutrition

    2.1 Nutrient deficiencies in individuals, history, and various demographic groups

3. Consumer Health

    3.1 Analyzing advertisements for health-related products or services
    3.2 Role of community health agencies
    3.3 Health care specialties and specialists

4. Safety/First Aid

    4.1 Human error, judgment, and emotions as causes of accidents
    4.2 Emergency procedures
    4.3 First aid in emergency situations

5. Family Life

    5.1 Dating and other relationships with the opposite sex
    5.2 Life adjustments related to marriage
    5.3 Criteria in selecting a marriage partner

GRADES 9-12

Major Emphases

Some of the major emphases of high school health education are: (1) accepting responsibility for effective family leadership as an adult; (2) developing knowledge necessary to plan and care for one's own children in the healthiest ways; (3) understanding the causes, effects, and methods of preventing the chronic diseases afflicting adults; (4) becoming aware of the variety and nature of careers in health fields; (5) developing the interpersonal skills necessary to form healthy relationships in a complex adult society; (6) developing the intrapersonal skills necessary to maintain a satisfying and healthy lifestyle throughout the individual's life cycle; (7) comprehending multiple influences on health-related behavior; and (8) actively planning for a healthy lifestyle.

Health Education Outline

1. Mental Health

    1.1 Coping with stress
    1.2 Communication skills that promote improved interpersonal relations
    1.3 Values as standards for behavior
    1.4 Productive problem-solving techniques
    1.5 Common affective disorders

2. Nutrition

    2.1 Causes and prevention of the most common nutritional problems and eating disorders
    2.2 Diet planning, fad diets, food fallacies, dietary needs of select groups
    2.3 Weight management techniques

3. Chemicals and Substance Abuse

    3.1 Nondrug alternatives to meeting human needs
    3.2 How drug use interfers with personal goal achievement
    3.3 Services available for drug problems

4. Consumer Health

    4.1 Criteria for self-care versus professional care choices
    4.2 Reducing health care costs

5. Safety/First Aid

    5.1 Single-person and two-person cardiopulmonary resuscitation (CPR)

6. Family Life

   - 6.1 Family influences on health behavior
   - 6.2 Maternal and child health
   - 6.3 Parenthood decisions and life changes
   - 6.4 Parenting skills and responsibilities
   - 6.5 Aging
   - 6.6 Domestic violence

7. Chronic Diseases

   - 7.1 Prevention
   - 7.2 Early detection

PHYSICAL EDUCATION

PURPOSE AND OVERVIEW

The purpose of physical education is to provide appropriate instruction for building a healthy body, mind, and character in each student in North Carolina schools. This can be achieved through a skill-based instructional program that truly reflects the needs of the student throughout her/his school experience.

These needs extend from the motor skills of the kindergarten child to the acquired skills and knowledge of the high school student that would enable them to pursue physical fitness and lifetime activities as an adult. The needs of handicapped students should be addressed through a specifically designed, adapted physical education program.

In the process of developing a physically educated person, the following goals should be achieved in a planned, sequential instructional program:

- motor skills (locomotor, non-locomotor, and manipulative) for successful participation in recreational dance, stunts, tumbling and gymnastics, games and sports

- a level of physical fitness to adequately meet the demands placed upon the individual by the environment

- knowledge and the intellectual skills and abilities necessary for successful participation in physical activities

- a positive self-image through participation in physical education

- desirable social behavior through participation in physical education

- aquatic skills (if facilities and resources are available)

- outdoor education skills (if facilities and resources are available)

LEARNING OUTCOMES

The learning objectives for the student focus on five major areas of instruction: fitness; basic movement; recreational dance; stunts, tumbling, and gymnastics; and games and sports. These five units compose the format of the student's physical education program.

1. Fitness

   a. Physical fitness testing
   b. Biological basis for fitness
   c. Physiological response to fitness
   d. Psychological and social benefits of fitness

2. Basic Movement

   While this area of instruction is specifically addressed in grades K-3, the basic movement skills are continued throughout the entire program by being incorporated into the other instructional areas.

   a. Locomotor skills
   b. Non-locomotor skills
   c. Manipulative skills
   d. Movement awareness concepts

3. Recreational Dance

   a. Dance exploration
   b. American folk dances, square, and round dances
   c. Traditional and contemporary

4. Stunts, Tumbling, and Gynmastics

   a. Balance skills of body management
   b. Mechanics of body position
   c. Tumbling skills
   d. Apparatus skills

5. Games and Sports

   a. Motor and manipulative skills
   b. Team games and sports
   c. Individual and dual games and sports
   d. Lifetime activities
   e. Rules and knowledge
   f. Social behavior skills

COURSE OF STUDY

Instructional Areas	K	1	2	3	4	5	6	7	8	9-12 *
Fitness	x	x	x	x	x	x	x	x	x	x
Basic Movement	x	x	x	x						
Recreational Dance	x	x	x	x	x	x	x	x	x	x
Stunts, Tumbling, and Gymnastics		x	x	x	x	x	x	x	x	x
Games and Sports		x	x	x	x	x	x	x	x	x

* In partial fulfillment of unit of credit required for high school graduation.

The electives beyond the high school graduation requirement should reflect the refinement of specific activities by offering beginning, intermediate, and advanced levels of instruction in: various individual and dual sports; fitness courses; recreational dance; and stunts, tumbling, and gymnastics. Additional activities in aquatics and outdoor education should be included when facilities are available. The emphasis on these elective courses should be on content that will provide all interested students with lifetime activities and adult fitness skills. These courses should be challenging, and reflect the practical knowledge necessary to insure a higher level of skill development.

GRADES K-3

Major Emphases

A comprehensive physical education program for all students has as its foundation learning experiences which are designed to help each individual develop movement patterns in a variety of situations.

Children at the primary level need to participate in physical activities that will help them to manage and control their bodies in a wide variety of experiences involving locomotor, non-locomotor, and manipulative skills. These movement experiences include large muscle activities such as running, bending, stretching, throwing, catching, and kicking. Furthermore, the instructional program should include a balance of learning experiences which will help each individual develop skills in: fitness; basic movement; recreational dance; stunts, tumbling, and gymnastics; and games and sports.

1. Fitness--By the end of grade three, students will know and understand the value of being physically fit, the types of activities that contribute to total fitness, and will participate daily in vigorous activity.

2. Basic Movement--By the end of grade three, students will be able to: execute locomotor skills--walk, run, hop, jump, and skip; non-locomotor skills--curl, twist, stretch, fall, and lift; skills, and manipulative skills--bounce, roll, throw, catch, kick, and strike.

3. Recreational Dance--By the end of grade three, students will be able to demonstrate fundamental rhythmic skills, and square dance steps, and will be able to perform basic folk dances.

4. Stunts, Tumbling, and Gymnastics--By the end of grade three, students will be able to perform basic tumbling skills (forward roll, backward roll, and balances) and basic apparatus activities (forward/backward walks on balance beam).

5. Games and Sports--By the end of grade three, students will be able to demonstrate the skills necessary for successful participation in a number of simple games.

Grade K Outline

Fitness

1.1 Physical fitness testing
1.2 Physiological response to exercise

Basic Movement

2.1 Locomotor skills
3.1 Non-locomotor skills
4.1 Concepts of self space and general space
4.2 Concept of body awareness
5.1 Manipulative skills

Recreational Dance

6.1 Body awareness
6.2 Simple dances

Stunts, Tumbling, and Gymnastics

7.1 Body positions
7.2 Gymnastic movements

Games and Sports

8.1 Integration of locomotor skills in a game situation
8.2 Integration of non-locomotor skills in a game situation
9.1 Body management
9.2 Listening
9.3 Safety

Grade 1 Outline

Fitness

1.1 Physical fitness testing
1.2 Physiological response to stretching

Basic Movement

2.1 Locomotor skills of skipping, leaping, and sliding
3.1 Dynamic and static balance
4.1 Manipulative skills of catching, throwing, and trapping
5.1 Concept of levels

Recreational Dance

6.1 Non-locomotor movement
6.2 Concepts of time and force

Stunts, Tumbling, and Gymnastics

7.1 Forward rolling patterns
7.2 Backward rolling patterns

Games and Sports

8.1 Integrating throwing patterns into games
8.2 Integrating kicking patterns into games
9.1 Safety skills
9.2 Cooperation skills

Grade 2 Outline

Fitness

1.1 Physical fitness testing
1.2 Physiological response to flexibility

Basic Movement

2.1 Patterns of locomotor skills
3.1 Movement concept of pathways
4.1 Manipulative skills of dribbling

Recreational Dance

5.1 Plan and execute a movement sequence
6.1 Rhythmic patterns while moving through space
6.2 Rhythmic patterns while feet are stationary

Stunts, Tumbling, and Gymnastics

7.1 Dynamic balance on low balance beam
7.2 Static balance on low balance beam

Games and Sports

8.1 Catching skills
8.2 Trapping skills
9.1 Throwing skills
9.2 Dodging skills
10.1 Social skills
10.2 Proper use of equipment
10.3 Following game rules

Grade 3 Outline

Fitness

1.1 Physical fitness testing
1.2 Biological benefits of exercise

Basic Movement

2.1 Changing direction and level with objects
3.1 Striking skills with objects
4.1 Jump rope skills

Recreational Dance

5.1 Creative movement while manipulating objects
6.1 Simple folk dance skills

Stunts, Tumbling, and Gymnastics

7.1 Inverted hang on the low turning bar
7.2 Headstand with assistance
8.1 Forward rolling patterns
8.2 Backward rolling patterns

Games and Sports

9.1 Frisbee skills
9.2 Soccer skills
10.1 Respect
10.2 Self-control
10.3 Accomplishment
10.4 Sportsmanship

GRADES 4-6

Major Emphases

Students at the intermediate level are mature enough to develop refined body management skills through participation in activities in the areas of: fitness; recreational dance; stunts, tumbling, and gymnastics; and games and sports. A flexible program provides for guided instruction in motor skills, opportunities to practice and improve those skills, participation in developmental physical fitness activities, opportunities for student decision-making, and the development of leadership and following. Physical education also provides opportunities for students to experience success, to develop respect for others, and to be accepted by their peers by practicing acceptable social behavior.

1. Fitness--By the end of grade six, students will know the fitness value of selected sports and activities, attain a predetermined fitness status for each individual, and participate in daily, vigorous activity.

2. Recreational Dance--By the end of grade six, students will demonstrate the skills necessary for performing basic folk dances, a number of different square dances, and the basic steps involved in selected popular dances.

3. Stunts, Tumbling, and Gymnastics--By the end of grade six, students will be able to perform basic tumbling stunts and routines as well as skills on the balance beam, parallel bars, vaulting box, and uneven parallel bars.

4. Games and Sports--By the end of grade six, students will be able to perform the basic skills involved in modified and lead-up games such as tag/flag football, basketball, table tennis, track and field, and other recreational activities.

Grade 4 Outline

Fitness

1.1 Physical fitness testing
1.2 Benefits of a physical fitness program

Recreational Dance

2.1 Folk dance skills
2.2 Square dance skills

Stunts, Tumbling, and Gymnastics

3.1 Tripod balance
3.2 Cartwheel patterns

Games and Sports

4.1 Basketball skills
4.2 Horseshoe skills
5.1 Treatment of equipment
5.2 Peer leadership

Grade 5 Outline

Fitness

1.1 Physical fitness testing
1.2 Physiological response to flexibility exercises

Recreational Dance

2.1 Qualities of intensity, speed, direction, and levels in a dance composition
2.2 Traditional folk dances
2.3 American folk dances

Stunts, Tumbling, and Gymnastics

3.1 Combining balance skills with tumbling skills

Games and Sports

4.1 Softball skills
4.2 Table tennis
4.3 Tag/flag football skills
4.4 Track and field skills

Grade 6 Outline

Fitness

1.1 Physical fitness testing
1.2 Cardiovascular fitness

Recreational Dance

2.1 Short, creative compositions
2.2 Concepts of measured time, pattern, and contrast
3.1 Folk dances
3.2 Square dances

Stunts, Tumbling, and Gymnastics

4.1 Various roll combinations

Games and Sports

5.1 Badminton skills
5.2 Tag/flag football skills
5.3 Track and field skills
5.4 Volleyball skills

GRADES 7-8

Major Emphases

Students of this age group encompass a wide range of physical differences, and will thus profit by specially selected programs that offer them a choice during the instruction period.

Having had opportunities to develop basic body control and management in the early childhood and intermediate physical education programs, this age group should now be given opportunities to refine these movement skills and apply them to a wide variety of more highly organized team, individual, and dual activities. The skills required in the areas of stunts, tumbling, and gymnastics, and recreational dance are also more refined and complex.

In addition, participation in selected activities that will develop and maintain individual physical fitness should be a vital part of the total program.

Opportunities that encourage independence, expressing opinions, setting one's own goals, developing leadership and following, and developing abilities to function in group activities are vital for these adolescents.

The program for students in grades 7-8 emphasizes exposure to a wide variety of activities that include:

1. Fitness--By the end of grade eight, students will know the principles of exercise and diet that contribute to the development of the totally fit individual. The student will attain a minimal level of physical fitness as indicated by a standardized fitness test.

2. Recreational Dance--By the end of grade eight, students will be able to perform basic steps in contemporary dance, folk dance, and social dance.

3. Stunts, Tumbling, and Gymnastics--By the end of grade eight, students will be able to perform tumbling and apparatus activities at an intermediate level of proficiency.

4. Games and Sports--By the end of grade eight, students will be able to perform the skills necessary for participation in a minimum of three team, dual, and/or individual lifetime activities.

Grade 7 Outline

Fitness

1.1 Physical fitness testing
1.2 Back and leg flexibility

Recreational Dance

2.1 Performing using elements of time, space, and energy
2.2 Assess movement performances

Stunts, Tumbling, and Gymnastics

3.1 Floor exercise routine of six elements
4.1 Vaulting skills

Games and Sports

5.1 Basketball skills
5.2 Soccer skills
5.3 Tennis skills
5.4 Track and field skills

Grade 8 Outline

Fitness

1.1 Physical fitness testing
1.2 Demonstrate cardiovascular fitness through activity

Recreational Dance

2.1 Popular dance

Stunts, Tumbling, and Gymnastics

3.1 Balances and dismounts on the balance beam
4.1 Four-skill bar routine

Games and Sports

5.1 Golf skills
5.2 Softball skills
5.3 Track and field skills
5.4 Volleyball skills

GRADES 9-12

Major Emphases

Senior high school students, like students of other age groups, need daily physical activity. This should include challenging activities that permit performance on an advanced level. Team sports are offered as a part of the total curriculum. However, emphasis is given to the coeducational and lifetime sports activities that can be enjoyed now and throughout life.

Even though students at this level still need adult guidance, greater independence and opportunity for self-direction become very important.

The physical education program in grades 9-12, will produce public school graduates who are proficient in at least three lifetime activities (i.e., tennis, golf, recreational games, recreational dance). Students will have the ability to access and maintain their appropriate level of physical fitness, even throughout adulthood.

It is important to note that this section includes ninth grade physical education objectives. Grades 10-12 are not a part of the Competency-Based Curriculum. This is a reflection on the nature of the purposes of the Competency-Based Curriculum as a measure of the required physical education program in North Carolina.

However, the absence of objectives in grades 10, 11, and 12 should not be interpreted as a lessening of commitment to the students in grades 10-12. These high school years are vital to ensure a strong knowledge base for continued adult fitness and lifetime sports involvement. Valuable physical education elective classes at grades 10-12 should continue to reflect the competency-based physical education goals and format of grades K-9.

Physical Education I Outline

Fitness

1.1 Physical fitness testing
1.2 Development of a personal fitness program
1.3 Physiological concepts of training workload, strength conditioning, and proper safety techniques

Recreational Dance

2.1 Round, folk, and square dances
2.2 Traditional and contemporary dances

Stunts, Tumbling, and Gymnastics

3.1 An eight-skill routine in the apparatus events

Games and Sports

4.1 Basketball skills/competence
4.2 Soccer skills/competence
4.3 Softball skills/competence
4.4 Volleyball skills/competence
4.5 Badminton skills/competence
4.6 Frisbee skills/competence
4.7 Golf skills/competence
4.8 Horseshoes skills/competence
4.9 Table tennis skills/competence
4.10 Tennis skills/competence
5.1 Knowledge of community resources for lifetime activities
5.2 Leadership and social skills

SAFETY EDUCATION

PURPOSE AND OVERVIEW

Safety education in the school plays an increasingly important role in providing the student with the necessary knowledge, skills, and willingness to practice safety. National accident statistics reveal that accidents are the main cause of death among school-age children. For this reason, well-planned safety programs must be made available, so that children are better able to adapt to or modify their environment to live safe and long lives.

Accident avoidance is not the total meaning of safety, although it is certainly an important function of safety education. One of the first efforts must be made in teaching children that accidents are caused, and are thereby preventable. Accidents are seldom, if ever, a matter of chance or luck. Students should be made aware that while human life has value and should be preserved, living itself involves daily risks, and that these risks change according to one's lifestyle, form of occupation, and interests. Safety education is not an end; it is a means to a full and productive life. All of us need to consider safety in our everyday activities. The child must be taught to learn to live with the concept of safety always in mind, and to discover the host of interesting and worthwhile experiences available to those who practice the art of safe living. Day-to-day activities in which children engage will be designed to:

- enable students to correctly identify hazards, assess risks, and make thoughtful safety decisions
- lower the frequency and severity of accidents which occur in all age groups
- develop in each student a sense of personal worth and respect for life and property
- give students experience in applying safe practices
- encourage students to improve personal characteristics related to efficiency of human movement, patience, and cooperation
- enable students to acquire positive attitudes toward laws enacted for safety of all citizens

LEARNING OUTCOMES

To meet the needs of students at different levels of development, interests, and abilities, certain areas of instruction and certain activities within these areas should be introduced and emphasized at the time most appropriate to the development of each pupil. This is determined by each student's exposure to life, her/his past experiences, and her/his special needs and interests. A kindergarten student, for example, may need to know her/his name, address, telephone number, and what course of action to take if lost, while a high school student should know the safety factors related to the purchase and maintenance of a home, safety at the workplace, and how safety should be applied throughout one's neighborhood and community.

Safety is basic and important to everyone's daily activities. Safe behavior is one of the foundations contributing to well-being and productivity. We live in a world of rapid and dramatic change. This change affects our homes, our work, and the full range of outside activities. Our children must be prepared to correctly assess hazards inherent in these changes, and to master those concepts and principles best suited for providing adequate safety for themselves and those around them.

In view of the wide range of daily activities engaged in by the student, safety information and instruction has been divided into five major categories: (1) traffic safety, (2) home safety, (3) school safety, (4) work safety, and (5) recreational safety.

These categories lend themselves to the interdisciplinary method of teaching safety in grades K-8. All categories are taught under the general heading of healthful living education. Individual categories may also be used as building blocks in a formally-structured course sequence of offerings in grades 9-12. The formal driver education course, for example, may be included as but one portion of a more general course involving other safety topics. Whether safety education is taught as a separate course offering at each grade level, or is incorporated into other subject areas, provisions for individual differences in ability and interest is an important principle in the safety education curriculum.

Efforts should be made to ensure that all students at each school level, including those with special needs, have ample opportunity to study:

- ways of safely performing their full range of daily activities
- ways of protecting life and property of themselves and others
- safety as an example of good citizenship

This course of study requires that safety and driver education be implemented as significant parts of healthful living education.

GRADES K-3

Major Emphases

An interdisciplinary approach to safety education is employed in these grades. A child begins to understand rules and regulations necessary for her/his safety, the safety of her/his classmates, and the safety of other people in her/his environment. Traffic safety, home safety, school safety, work safety, and recreational safety are related to the child's day-to-day activities. The child learns to play the safety role as a pedestrian, as a participant in a fire drill, as a school bus passenger, while riding a bicycle, and in her/his everyday activities throughout the school, home, and community. At this grade level, children begin to learn what constitutes a safety hazard, and they begin to appreciate the role and importance of those members of the community--police, firefighter, and ambulance personnel--in their everyday lives. Special emphasis is given to fire safety procedures as an integral part of each category of activities at this grade level.

Program Features

Knowledge/Content:

1. Traffic Safety--Includes pedestrian, school bus, and passenger safety. Perceptual and judgmental skills are emphasized. Bicycle safety is extremely important since many children at this age begin driving their bicycles on the street.

2. Home Safety--Enables students to recognize and understand the many hazards in the home and encourages them to use safe practices at home.

3. School Safety--Identification of hazards in the school and on school grounds, including efforts to induce children to behave safely on school property.

4. Work Safety--Guides students in the recognition of hazards in performing "do-it-yourself" tasks at home and an appreciation for safety helpers in the community.

5. Recreational Safety--A child should learn of safe places to play, proper use of equipment, and demonstrate a willingness to follow practices conducive to safety of themself and others.

Grade K Outline

1. Traffic Safety

   1.1 School bus
   1.2 Auto passenger
   1.3 Pedestrian

2. Home Safety

   2.1 Matches and electrical devices
   2.2 Toys and play areas
   2.3 Reporting emergencies

3. School Safety

   3.1 School building and grounds
   3.2 School equipment and materials

4. Work Safety

   4.1 Work objects (tools)

5. Recreational Safety

   5.1 Safe sites

Grade 1 Outline

1. Traffic Safety
    - 1.1 School bus
    - 1.2 Auto passenger
    - 1.3 Pedestrian

2. Home Safety
    - 2.1 Matches and electrical devices
    - 2.2 Toys
    - 2.3 Reporting emergencies

3. School Safety
    - 3.1 School building and grounds
    - 3.2 School equipment and materials
    - 3.3 School emergency procedures

4. Work Safety
    - 4.1 Home tools (use and storage)

5. Recreational Safety
    - 5.1 Safe Sites

Grade 2 Outline

1. Traffic Safety
    - 1.1 School bus
    - 1.2 Auto passenger
    - 1.3 Pedestrian
    - 1.4 Bicycle

2. Home Safety
    - 2.1 Storage of dangerous materials
    - 2.2 Hazardous items

3. School Safety
    - 3.1 School building and grounds
    - 3.2 School equipment and materials
    - 3.3 School emergency procedures

4. Work Safety
    4.1 Safety helpers

5. Recreational Safety
    5.1 Safe equipment

Grade 3 Outline

1. Traffic Safety
    1.1 School bus
    1.2 Auto passenger
    1.3 Pedestrian
    1.4 Safety helpers

2. Home Safety
    2.1 Safe housekeeping
    2.2 Hazardous items
    2.3 Emergency procedures

3. School Safety
    3.1 School building and grounds
    3.2 School equipment and materials
    3.3 School emergency procedures

4. Work Safety
    4.1 Community safety helpers (e.g., doctors, industry supervisors)

5. Recreational Safety
    5.1 Safe attitudes

GRADES 4-6

Major Emphases

A complete safety instruction program for intermediate grades is developed around activities in the home, in the traffic environment, at school, and during leisure time. Prevention of falls, fire prevention, natural disasters, use of traffic facilities as a pedestrian and cyclist, riding school buses, and first aid are areas to emphasize at this age.

Program Features

Knowledge/Content:

1. Traffic Safety--The scope of activities in pedestrian, bicycle, school bus, and passenger safety will be broadened to provide students opportunities to express safety concerns for themselves and others. Minicycle safety is to be covered, along with laws which affect vehicles and pedestrians.

2. Home Safety--At this age a child needs to learn responsibility for safety in the home. Fire prevention, first aid, special hazards around the home, natural disasters, and the prevention of falls are areas of concern.

3. School Safety--In addition to safety to and from school, children need to broaden their knowledge of safety in the school buildings and on the playgrounds. Conduct during emergencies, first aid, and the reporting of accidents will be introduced.

4. Work Safety--Special hazards are emphasized since, at this age, children are given new work responsibilities. Hand tools, kitchen utensils, power mowers, and lifting and carrying are among the topics to be covered.

5. Recreational Safety--At this age students explore methods of reducing risks associated with activities such as swimming, boating, fishing, hunting, skiing, camping, hiking, skating, and cycling.

Grade 4 Outline

1. Traffic Safety

    1.1 Rules and regulations

2. Home Safety

    2.1 Fire
    2.2 Home emergency procedures
    2.3 Reporting emergencies

3. School Safety

    3.1 School building and grounds

4. Work Safety

    4.1 Community helpers

5. Recreational Safety

    5.1 Rules for water, camping, hunting, and other sports

Grade 5 Outline

1. Traffic Safety

    1.1 Pedestrian, cyclist, and passenger
    1.2 Natural laws
    1.3 Identify hazards

2. Home Safety

    2.1 Fire, falls, and electrical shock
    2.2 Natural disasters
    2.3 Reporting emergencies

3. School Safety

    3.1 School equipment and materials

4. Work Safety

    4.1 Hand tools
    4.2 Power tools

5. Recreational Safety

    5.1 Safety sites
    5.2 Holiday safety
    5.3 Fireworks

Grade 6 Outline

1. Traffic Safety

    1.1 Simple first aid
    1.2 Reporting traffic accidents

2. Home Safety

    2.1 Hazardous items
    2.2 Reporting emergencies

3. School Safety

    3.1 School emergency procedures
    3.2 Simple first aid

4. Work Safety

    4.1 Part-time jobs

5. Recreational Safety

    5.1 Safe sites
    5.2 Safe equipment
    5.3 Seasonal hazards

GRADES 7-8

Major Emphases

Safety education at the elementary level has emphasized on basic experiences designed to teach children the importance of protection of themselves and others. At the secondary level, the emphasis is on developing in students a higher level of experience-based wisdom in risk situations. In their unsupervised behavior, students should exhibit the basic learning acquired during earlier years, and should move toward assuming more individual responsibility and group leadership.

Program Features

Knowledge/Content:

1. Traffic Safety--At this level the emphasis is on preparation for driving task. More sophisticated approaches to pedestrian, cycle, and school bus safety will be presented, but major attention now focuses on building proper attitudes toward driving. Presentations will deal with auto safety devices, trip planning, the highway transportation system, the relationship of the individual to that system, and a history of the automobile.

2. Home Safety--At this level students begin to understand the "where" and "why" of accidents, as well as who is most frequently involved. This age group will begin to set an example for younger children in separate areas of home safety.

3. School Safety--Basic safety skills pertaining to the school continue to be stressed with action type activities in classes and/or clubs, to correct potential hazards on the campus. Special attention is given to the purpose and role of emergency preparedness and the importance of following school procedures in cases of emergency.

4. Work Safety--Some students will enter occupational courses at this level, and safety should definitely be a part of such programs. Generally, all students will benefit from a study of the world of work with an emphasis on

on types of jobs, training requirements, working conditions, regulatory laws, licensing processes, and the role of private and governmental agencies in safety control.

5. Recreational Safety--Certain basic safety principles need to be stressed to students at this level. Some of these considerations are the importance of good physical and emotional conditioning when engaging in recreational activities, the importance of proper equipment and the use of this equipment only for the activity for which it is intended, and the importance of pacing one's self. Opportunities are presented for student participation in community planning of recreational activities.

Grade 7 Outline

1. Traffic Safety

    1.1 Power-driven vehicles
    1.2 Transportation system

2. Home Safety

    2.1 Personal factors
    2.2 Accident locations
    2.3 Prevention
    2.4 Home emergencies

3. School Safety

    3.1 Regular school environment
    3.2 Special activities

4. Work Safety

    4.1 Common occupational hazards
    4.2 Illness, emotions, and accidents
    4.3 Federal, state, and local rules

5. Recreational Safety

    5.1 Selecting equipment
    5.2 Hazards per activity
    5.3 Community rules and regulations

Grade 8 Outline

1. Traffic Safety

    1.1 Vehicles and function
    1.2 Transportation system

2. Home Safety
    2.1 Consumer products
    2.2 Sources of information
    2.3 Household safety devices

3. School Safety
    3.1 School emergencies
    3.2 Basic first aid

4. Work Safety
    4.1 Identify work available
    4.2 Local laws (e.g., work permits)

5. Recreational Safety
    5.1 Physical factors
    5.2 Needs of handicapped

GRADES 9-12

Major Emphases

All areas of safety education--home, school, work, and recreational--need to be continued in the high school program. Teachers of all subjects need to recognize and use a basic safety philosophy in their daily activities. The purpose of safety education is to teach the individual to adjust properly to everyday living. Safety is especially important to students in grades 9-12 as they begin to drive more frequently, and by so doing face more critical safety hazards than they have been previously accustomed to.

Program Features

Knowledge/Content:

1. Traffic Safety--The primary aims of traffic safety education at the high school level are to prepare students to operate motor vehicles with at least minimum performance capabilities, to help students make informed decisions in their driving, and to motivate students to become responsible motor vehicle operators.

2. Home Safety--Home safety will focus on selection of a safe home site, a building and facilities that incorporate the safety needs of all who live there, and the degree of protection provided by agencies and individuals servicing that area. Consideration will also be given to home management

techniques in which each family member performs in ways designed to contribute to the safety of the family unit as a whole. This includes adults being mindful of a child's safety and the child being aware of the problems of safety relating to the elderly.

3. School Safety--Emphasis will focus upon activities motivating young adults to follow the safety practices learned in earlier grades, along with the development of new safety practices to deal with hazards which may be encountered at their new grade levels. Identification of hazards and safety information will be given emphasis while orienting students to their new activities and facilities. Emphasis will be placed upon: (1) safe use and safe storage of chemicals and other dangerous substances in science laboratories; (2) safe use of new machines, tools, and equipment in other laboratory or shop programs; and, (3) safety as practiced in school-operated places of assembly, including playgrounds, athletic fields, gyms, and parking areas. Students should be taught to know, understand, and always consider the element of safety in all their activities, both in and out of the school environment.

4. Work Safety--Focus is on the use of safety procedures in students' jobs at school, and in other locations. The student will grasp the need for understanding the basic safety principles which apply in differing situations and under differing conditions. The student will be provided with opportunities to learn from local businesses, industrial plants, and governmental agencies about the significance placed by employers on safety performance in their workplace. While students may study safety principles as applied in outside businesses and industries, at times it may be more advantageous for safety specialists to visit the classroom to give talks or demonstrations in safety methods and techniques.

5. Recreational Safety--Students will continue practicing safety habits at the high school level centering upon safety in all forms of sports and recreation. In addition to personal and group safety considerations, students will be expected to contribute their ideas and suggestions to the selection and improvement of recreational facilities, maintaining recreational equipment and facilities, and the elimination of potential hazards.

Grades 9-10 Outline (Driver Education)

1. Individual Responsibility

   1.1 Purpose of law
   1.2 Common violations
   1.3 Traffic safety specialists
   1.4 Emergency situations
   1.5 Attitude factors

2. Perform Safely as a Vehicle Operator

    2.1 Skill and control
    2.2 Rules of the road
    2.3 Vehicle interaction
    2.4 Safety check

3. Human and Economic Factors

    3.1 Alcohol and other drugs
    3.2 Cost of operation

4. Emergency Situations

    4.1 Driving decisions
    4.2 First aid for traumatic injuries

5. Natural Laws

    5.1 Inertia, momentum, friction, and centrifugal force.

6. Defensive Driving

    6.1 I.P.D.E.--identify, predict, decide, execute
    6.2 Smith system

Grades 9-12 Outline (General Safety Education)

1. Traffic Safety

    1.1 Defensive driving techniques
    1.2 Driving emergencies
    1.3 Driving conditions
    1.4 Straight drive transmission
    1.5 Laws for mopeds and motorcycles

2. Home Safety

    2.1 Select home site
    2.2 Protection services
    2.3 Household tools
    2.4 Poisons
    2.5 Combustible materials
    2.6 Building codes

3. School Safety

    3.1 School accident data
    3.2 School emergency procedures
    3.3 Personal safety role

    - 3.4 Intramural sports
    - 3.5 Laboratory safety

4. Work Safety

    - 4.1 Individual responsibility
    - 4.2 Safe practices
    - 4.3 Local, state, and federal agencies
    - 4.4 Hazards of local occupations

5. Recreational Safety

    - 5.1 Safe sites
    - 5.2 Maintenance of equipment
    - 5.3 Protective clothing
    - 5.4 Recreation emergencies
    - 5.5 Local accident facts
    - 5.6 Local agencies
    - 5.7 Local recreation programs

LIBRARY/MEDIA SKILLS

PURPOSE AND OVERVIEW

The goal of the school library/media program is to ensure that each child acquire skills necessary to become an independent learner.

The school library/media skills program is an integral part of the instructional process. Good library/media programs are designed to teach the learner skills in finding, evaluating, and applying information that helps her/him to function effectively as an individual. Quality library/media programs recognize that students function at different levels of maturity, ability, and interest.

Educators are increasingly aware that schools must attempt to provide instruction relative to the varying needs, ability levels, and cultural backgrounds of today's students. These students come to school with varied psychological and emotional experiences. In addition, they are exposed daily to highly stimulating and rapidly changing technology outside the school setting. If students are to function successfully in a complex society, they must acquire skills and knowledge to become independent learners. Within the school, the library/media program is a major force which helps the student develop necessary skills. The school's media center should serve as an extension of the classroom--a laboratory for learning those skills that can be applied to information needs throughout the student's life.

Studies have demonstrated that the teaching of library/media skills is most successful when integrated into the curriculum instead of being taught as a separate, unrelated course. Since skills are best acquired through meaningful experiences rather than through arbitrarily scheduled or isolated exercises, instruction should be designed to meet the needs and interests generated from classroom activities and assignments.

The teaching of library/media skills should be a cooperative effort between the school media coordinator and the classroom teacher; instruction may occur in the media center or in the classroom. When teachers and media coordinators share the responsibility for planning, teaching, and providing opportunities for students to practice, the integration of library media skills instruction into the curriculum will occur at the most appropriate time and will maximize retention by students.

COURSE OF STUDY

The school library/media skills curriculum is not simply a list of topics to be covered at one specific time in the K-12 curriculum. It is a set of clearly defined skills (locational, inquiry/investigation, reporting, literature appreciation, and reading guidance) initiated with the student's introduction to the media center and continued consistently through a sequential plan, from kindergarten through the twelfth grade.

As students advance from grade to grade, the information resources introduced become more specialized and the depth of skills instruction increases. Realizing that few library/media skills can be acquired from one brief exposure, emphasis is placed on constant reinforcement (practice) of skills previously introduced and taught. Continuous review, reinforcement, and expansion of the skills improve a student's ability to be an independent user of all types of information resources--the goal of a library/media skills program.

LEARNING OUTCOMES

The skills outlined below should serve as a basis for identifying desired learning outcomes. They are:

- orientation and organization--the learner will demonstrate a working knowledge of the media center's organization and the procedures required to use the center and its collections
- selection and utilization--the learner will select and use materials and equipment appropriate to personal needs and classroom assignments
- comprehenson and application--the learner will identify concepts presented in media, interpret and organize information, and develop evaluative skills for understanding media at school and elsewhere
- production and presentation--the learner will design, produce and/or select a variety of media formats to present information
- enrichment--the learner will expand reading, listening, and viewing interests by using a variety of media for personal growth, vocational pursuits, and recreation
- computer awareness--the learner will demonstrate an understanding of computers, their operation, and their possible application to solving relevant problems

GRADES K-3

Major Emphases

In the primary grades, students are exposed to a variety of activities in the library/media program under the guidance and close supervision of both the media and instructional staff. Emphasis is given to the formation of good study habits and the acquisition of skills that will influence the students' learning experiences throughout life.

As a result of their experience in the K-3 years, students will:

1. Be familiar with the library/media center and its staff and be able to assist with simple, routine tasks.
2. Understand fundamental library/media terminology.
3. Choose, borrow, use, and return materials and equipment to the center.
4. Use basic communication skills for information and for enjoyment.
5. Enjoy various forms of literature--e. g., nursery rhymes, fairy tales, and other literary experiences offered in the media program.
6. Exhibit respect for school property and the rights of others.

GRADES 4-6

Major Emphases

At the intermediate level, previously acquired library/media skills are reviewed and reinforced. Emphasis is given to developing new competencies in the use of materials and equipment and to producing simple audiovisual materials. Opportunities are provided for more independent and small-group activities.

As a result of experiences provided by the library/media program in the intermediate grades, students will:

1. Possess additional skills in using the library/media center and its resources, thereby facilitating learning.
2. Use a greater variety of more sophisticated materials and equipment.
3. Understand and accurately use basic library/media vocabulary.

4. Demonstrate increased competence in working independently and creatively, especially in preparing assignments in the content areas.

5. Use more complex reference tools and other resources and use the card catalog as an index to the media collection.

6. Recognize diverse literary forms and their special characteristics.

7. Continue to grow in enjoyment and appreciation of literature through reading widely.

8. Understand and apply simple production techniques.

9. Show a willingness to assist the library/media staff with responsible tasks.

10. Recognize the potential for personal pleasure and development available through the use of media.

GRADES 7-8

Major Emphases

At the middle/junior high school level, major emphasis is placed on evaluation and reinforcement of students' proficiency in previously taught skills and on remedial work to eliminate deficiencies. Particular emphasis is given to developing new competencies in using special reference sources and to skills in production techniques employing more sophisticated equipment. Planned activities also provide skill in identifying propaganda or biased treatment in materials.

As a result of experiences provided in the program, students will be able to:

1. Apply increased competencies in using more sophisticated materials and equipment in daily learning activities related to various academic disciplines and occupational explorations.

2. Use more specialized library/media terminology.

3. Manage essential research tools independently.

4. Credit sources of information and appreciate intellectual honesty.

5. Produce, with available equipment, a more diverse range of media.

6. Exercise good judgment in choosing authentic, reliable materials.
7. Appreciate wider ranges and genres of literature.
8. Participate in library/media and other clubs acquainting them with career opportunities.
9. Display respect for the property of others.
10. Pursue personal interests and inquiries in a variety of resources and formats available in the library/media center.

GRADES 9-12

Major Emphases

At the high school level, all library/media skills taught in previous years should be mastered by students, and advanced research skills using specialized reference tools should be acquired. Emphasis is given to acquiring skills in inquiry, analysis, organization, critical thinking, and problem-solving, using all forms of media at the students' disposal. Special emphasis is given to applying these skills in strengthening students' abilities to achieve academically or to function successfully in vocational pursuits.

As a result of experiences provided in the high school media program, students will be able to:

1. Acquire and assimilate all types of information in their total learning experience, thereby enhancing their ability to function as knowledgeable, informed productive citizens.
2. Use specialized reference sources to aid critical analysis.
3. Demonstrate intellectual integrity in accurately acknowledging and documenting ideas and information gained from other sources.
4. Produce more sophisticated audiovisual materials.
5. Appreciate the unique properties and contributions of a wide range of information sources.
6. Read discriminatingly for information and for pleasure.
7. Continue to use all types of libraries and other resources to identify and locate information necessary in their daily lives.
8. Use and enjoy diversified media for personal growth and recreation.

MATHEMATICS

PURPOSE AND OVERVIEW

The primary goal of mathematics education is to ensure that every child will become mathematically literate. Both the individual student and society are the beneficiaries when this is accomplished. Mathematics literacy is a necessity for everyone, not only the professional who chooses a career in mathematics or in a field which makes use of mathematics.

The more sophisticated and complicated world we live in today has significant implications for the curriculum as a whole and for mathematics in particular. Modern technology makes it imperative that every citizen have some understanding of mathematical reasoning and that, at every level of proficiency, a much larger group have an understanding of mathematical method.

The mathematics program adopted here is by necessity broader and more inclusive than in the past. It must develop more than vocabulary, facts, and principles; more than the ability to analyze a problem situation; more than an understanding of the logical structure of mathematics.

A modern mathematics program must provide students with the ability to distinguish fact from opinion, relevant from irrelevant data, and experimental results from proven theorems. This program has to stimulate curiosity so that students will enjoy exploring new ideas and creating mathematics which is new for them even though it has been discovered by others. It must develop reading skills, motivation, and study habits essential for the independent learning of mathematics. In short, the mathematics program must produce students who know how to learn mathematics, enjoy learning mathematics, and are motivated to continue this learning.

Computers and calculators should be integrated into the mathematics curriculum in imaginative ways. In addition to being used in numerical calculations, they should be used to clarify concepts and computational algorithms. They should be used extensively in problem-solving situations, as they enable a student to attack a problem from different points of view.

COURSE OF STUDY

K-6
Elementary Mathematics

7-8
Middle School/Junior High Mathematics

9-12

Non-College Preparatory	College Preparatory
General Mathematics	Algebra I
Technical Mathematics	Geometry
Consumer Mathematics	Algebra II
Introductory Algebra (Part 1)	Advanced Mathematics
Introductory Algebra (Part 2)	

Many school districts offer other electives which are not part of the State-funded basic education program but which are appropriate to this instructional area. Such electives may include: Advanced Placement Calculus, Advanced Placement Computer Science, Computer Applications, and Probability and Statistics. Some schools, instead of offering Advanced Mathematics as a one-year, one-unit course offer quarter or semester courses in Analytic Geometry, Trigonometry, and Advanced Algebra. These courses, when offered in this manner, should be considered as part of the basic education program.

The mathematics competency-based curriculum:

- is designed for statewide use.
- is not correlated with any textbook and does not restrict the use of any relevant textbook or program.
- encourages the offering of a series of courses suitable to varying abilities of all students. For example, schools often offer Algebra I below grade 9.
- assumes that there are individual differences among students and that the degree and rate of achievement will vary among them.

- assumes that teachers have different methods, and will approach the teaching of mathematics differently.

- stresses a balance of concept learning, computational processes, and problem-solving.

LEARNING OUTCOMES

In addition to the formal mathematical concepts and skills that students acquire on a continuing basis, there are other benefits derived from the study of mathematics. Students develop attitudes relative to mathematics and its importance in their lives, and they acquire skills which enable them to process information, analyze data, and draw conclusions essential to sound decision-making.

1. Positive Attitudes Concerning:

   a. The contributions of mathematics, science, and technology in shaping the world in which people live--adverse as well as beneficial effects.

   b. The role of mathematics in helping people meet their responsibilities to society.

   c. The learning and experiencing of mathematics.

   d. The use of scientific inquiry as a way of thinking and evaluating all human activity.

   e. The historical development of mathematics.

2. Process Skills

   a. Observing
   b. Classifying
   c. Using space/time relations
   d. Using numbers
   e. Communicating
   f. Measuring
   g. Inferring
   h. Predicting
   i. Interpreting data
   j. Formulating hypotheses
   k. Formulating models

3. Mathematical Concepts and Skills

   At each grade level or in each course outlined, mathematical concepts and skills are continuously developed and reinforced.

GRADES K-3

Major Emphases

All 5 to 9 year olds should have opportunities to participate in activities conducive to developing mathematical concepts. Concepts are the premises, foundations, and structures of thinking. Their development is a gradual and life-long process, going through many changes--probably never becoming static. All early ideas of mathematics grow out of observing what happens in the world. Logical reasoning ability develops through actual manipulation of objects in the physical world. The searching, exploring, and inquiring nature of children 5 to 9 years of age promotes the development of concepts that are prerequisite to effective learning in mathematics.

The major emphases in grades K-3 should be placed on:

- activities which involve the total physical being of each learner in exploring spatial relationships in the world around her/him.
- manipulation of real objects to give meaning to numbers and operations.
- experimentation which leads to discovery of numerical and geometrical relationships.
- applications which enable students to work with numbers to solve problems.

Appropriate use of computers and calculators will enhance and enrich the mathematics program at these grade levels.

Grade K Outline

1. Numeration

   a. Identify numerals, 0 to 10.
   b. Compare sets with up to 10 objects.
   c. Do rote counting, 0 to 20.
   d. Use one-to-one correspondence.
   e. Use ordinal numbers, first through third.
   f. Classify objects using specific attributes.

2. Whole Numbers

   a. Combine two sets of objects.
   b. Determine the larger of two sets of objects.
   c. Divide a set into two equal sets.
   d. Determine the value of a set when one object is taken away.

3. Fractions

    a. Identify objects that have been divided into two parts.
    b. Identify objects that have been divided into halves.

4. Measurement

    a. Use direct comparison to classify and determine the size of objects.
    b. Identify before and after.
    c. Identify coins and use value of pennies and nickels.
    d. Use hour and minute references in daily vocabulary.

5. Geometry

    a. Recognize simple plane and solid figures, e.g., square, triangle, circle, box, and ball.
    b. Identify simple geometric patterns.
    c. Classify objects by size, position, and shape.
    d. Build similar figures.

6. Probability and Statistics

    a. Read simple informational charts.
    b. Read simple horizontal and vertical bar graphs.

Grade 1 Outline

1. Numeration

    a. Recognize numerals, 0 to 100.
    b. Order numbers, 0 to 100.
    c. Write a two-digit number using expanded notation.
    d. Regroup ones to tens, tens to a hundred.
    e. Use ordinal numbers, first through tenth.
    f. Skip count by 2's, 5's, and 10's.
    g. Identify odd and even numbers up to twenty.
    h. Recognize "one more than" and "one less than".

2. Whole Numbers

    a. Add numbers, 0 to 20.
    b. Subtract numbers, 0 to 20.
    c. Find the sum of three one-digit addends.
    d. Add and subtract two two-digit numbers without regrouping.
    e. Add multiples of ten with sums to 100.
    f. Subtract a multiple of ten from any two-digit number.
    g. Find sums of money less than one dollar.
    h. Count equal sets repeatedly.
    i. Use division concepts in sets and on regions.

3. Fractions

    a. Identify sets and regions that have been divided into halves, thirds, and fourths.

4. Measurement

    a. Compare objects using nonstandard units.
    b. Sequence events.
    c. Identify values of all coins.
    d. Tell time to the nearest hour and half-hour.

5. Geometry

    a. Sort and classify objects by position.
    b. Repeat geometric patterns.
    c. Identify open and closed figures.
    d. Construct similar figures.
    e. Identify geometric shapes that are symmetrical.

6. Probability and Statistics

    a. Read and interpret simple horizontal and vertical bar graphs.
    b. Design and construct graphs and charts from given information.

Grade 2 Outline

1. Numeration

    a. Order and compare numbers up to 1,000.
    b. Skip count by 3's and 4's.
    c. Write a given three-digit number in expanded form.
    d. Use word names for numerals.
    e. Round numbers to nearest ten.

2. Whole Numbers

    a. Add three-digit numbers with regrouping once.
    b. Subtract three-digit numbers without regrouping.
    c. Use multiplication concepts to determine the number of objects in a set.

3. Fractions

    a. Divide regions and sets into halves, thirds, and fourths.

4. Decimals

    a. Use decimals in writing money expressions.

5. Measurement

    a. Measure length using standard units: inch and centimeter.
    b. Measure temperature in Celsius and Fahrenheit degrees.
    c. Measure capacity to the nearest liter and quart.
    d. Measure time to nearest minute.
    e. Identify days of the week, months.
    f. Make change up to $1.00.
    g. Measure mass to the nearest kilogram and pound.
    h. Identify items by the dozen.

6. Geometry

    a. Compare and contrast plane and solid geometric figures.
    b. Identify and construct geometric patterns.
    c. Identify symmetrical figures and their line(s) of symmetry.

7. Probability and Statistics

    a. Read and interpret given bar graphs.
    b. Collect, classify, record, and tally information.
    c. Find points on a rectangular coordinate plane using ordered pairs.

Grade 3 Outline

1. Numeration

    a. Order and compare numbers up to 10,000.
    b. Skip count by 100.
    c. Write numbers of four digits or less in standard form using words and expanded notation.
    d. Identify odd and even numbers up to 10,000.
    e. Round to the nearest hundred.

2. Whole Numbers

    a. Add two three-digit numbers with regrouping.
    b. Subtract two two-digit numbers with regrouping.
    c. Multiply one two-digit number by a one-digit number without regrouping.
    d. Estimate the number of sets within a group.
    e. Use the properties of zero and one in computation.

3. Fractions

    a. Identify fractional parts of regions and sets that have been divided into as many as eight parts.
    b. Use a number line to determine fractional parts--halves, thirds, fourths, . . . eighths.

4. Decimals

   a. Read and write money equivalents.

5. Measurement

   a. Use appropriate units of measure for length (in., cm, mm), capacity (qt., L), volume (cm), mass (g, kg, oz., lb.).
   b. Order time sequences; distinguish between a.m. and p.m.; determine elapsed time.
   c. Solve a variety of money-related problems involving making change.

6. Geometry

   a. Identify properties of solid and plane figures.
   b. Find lines of symmetry in various figures.
   c. Draw diagonals of polygons.
   d. Identify similar figures.
   e. Determine edges, faces, vertices of various geometric solids.
   f. Use ordered pairs on coordinate grids.

7. Probability and Statistics

   a. Read, interpret, and plot points on coordinate graphs.
   b. Sort information and estimate outcomes.

GRADES 4-6

Major Emphases

In grades 4-6, there is a continuation of the major emphases initiated in grades K-3 as the learner moves to the "skill establishment" stage. Activities, exploration, and experimentation include provisions for:

- translating ideas into mathematical language and symbols.
- learning to make reasonable estimates.
- developing independence in solving meaningful problems.
- mastering basic number facts.
- computing with whole numbers, fractions, and decimals.
- learning geometric concepts.
- developing measurement skills.

- constructing and interpreting tables, charts, and graphs.

- examining notions of elementary probability and statistics.

The mathematics program at grades 4-6 should be enriched and enhanced through the use of calculators and computers.

Grade 4 Outline

1. Numeration

   a. Compare two numbers up to six digits.
   b. Round numbers to nearest ten, hundred or thousand.
   c. Change numbers less than one million from standard form to word form and vice versa.
   d. Give place value of a digit in a number less than one million.

2. Whole Numbers

   a. Add and subtract three-digit numbers with regrouping.
   b. Multiply two two-digit numbers with regrouping.
   c. Divide a three-digit number by a one-digit number with regrouping and a remainder.
   d. Estimate sums, differences, and products by rounding.
   e. Solve problems.

3. Fractions

   a. Identify equivalent fractions.
   b. Add and subtract fractions with like denominators.
   c. Change fractions to mixed numbers and vice versa.
   d. Write a fraction in lowest terms.
   e. Multiply a whole number by a fraction.

4. Decimals

   a. Identify the value of a given decimal.
   b. Order money amounts written as decimals.
   c. Solve problems.

5. Measurement

   a. Express time in hours and minutes using addition and subtraction.
   b. Determine length, width, or height of an object to nearest centimeter or ¼ inch.
   c. Identify relationship between inch/foot, centimeter/meter, ounce/pound.
   d. Solve problems.

6. Geometry

   a. Identify points, segments, rays, lines, angles, and right angles.
   b. Identify congruent figures.
   c. Recognize the radius and diameter of a circle.
   d. Find the perimeter of a given geometric figure.
   e. Find the area of a given geometric figure.
   f. Sort objects using two attributes.
   g. Repeat a geometric pattern in reverse.

7. Probability and Statistics

   a. Determine and tally the frequency of events.

Grade 5 Outline

1. Numeration

   a. Compare numbers up to seven digits.
   b. Round numbers to nearest million.
   c. Change numbers less than one billion from word form to standard form and vice versa.
   d. Give place value of a digit in a number less than one billion.
   e. Write expanded numerals for numbers to millions.
   f. Recognize Roman numerals up to M.
   g. Determine whether a given number is prime or composite.

2. Whole Numbers

   a. Add two four-digit numbers with regrouping.
   b. Subtract two three-digit numbers with regrouping.
   c. Multiply two three-digit numbers with regrouping.
   d. Divide up to a five-digit number by a two-digit number.
   e. Find least common multiples and greatest common factors.
   f. Estimate sums, differences, products, and quotients by rounding.
   g. Solve problems.

3. Fractions

   a. Write fractions in lowest terms.
   b. Compare fractions.
   c. Change improper fractions to mixed numbers and vice versa.
   d. Add and subtract fractions and mixed numbers with unlike denominators.
   e. Multiply fractions.
   f. Divide a whole number by a fraction.
   g. Solve problems.

4. Decimals

    a. Compare decimal expressions up to thousandths.
    b. Give the place value for any digit in a decimal numeral through thousandths.
    c. Add and subtract decimal numbers with up to three decimal places.
    d. Multiply and divide decimals with up to three decimal places.

5. Measurement

    a. Name periods of time using day, hour, minute, second.
    b. Measure length using metric units (millimeter, centimeter, meter, and kilometer).
    c. Measure length using customary units (inch, foot, yard, mile).
    d. Measure temperature in Celsius and Fahrenheit degrees.
    e. Find areas of rectangles by counting and computing.
    f. Measure angles using a protractor.
    g. Solve problems.

6. Geometry

    a. Identify angles as acute, right, or obtuse.
    b. Identify parallel and perpendicular lines.
    c. Identify congruent figures and their corresponding parts.
    d. Recognize special triangles (equilateral, isosceles, scalene) and quadrilaterals (parallelogram, rhombus, trapezoid).
    e. Construct a circle with a compass and name the parts (radius, diameter).
    f. Estimate the perimeter of a given figure.
    g. Determine if a given figure is symmetrical.

7. Probability and Statistics

    a. Gather information, construct, and interpret bar, line, and circle graphs.
    b. Determine simple ratios.

Grade 6 Outline

1. Numeration

    a. Write expanded notation for all numbers less than one billion.
    b. Give place value of a digit in a number less than one billion.
    c. Round numbers to an indicated place, through millions.
    d. Compare two numbers with the same number of digits.

2. Whole Numbers

    a. Add and subtract numbers up to six digits with regrouping.
    b. Multiply and divide with regrouping.

   c. Find the prime factorization of a composite number.
   d. Solve problems.

3. Fractions

   a. Add or subtract mixed numbers with regrouping.
   b. Multiply and divide a whole number by a fraction, two fractions, a whole number by a mixed number, two mixed numbers.

4. Decimals

   a. Read and write numerals or word names for decimals through thousandths.
   b. Compare two numbers with up to four digits to the right of the decimal.
   c. Round decimals to the nearest tenth, hundredth, thousandth.
   d. Add, subtract, multiply, and divide two numbers in decimal form.
   e. Divide a decimal by a whole number or a decimal.
   f. Solve problems.

5. Measurement

   a. Add or subtract hours, minutes, seconds.
   b. Find the beginning, end, or amount of elapsed time, given two of the three.
   c. Determine the volume of a rectangular solid.
   d. Find the circumference and area of a circle.
   e. Compare metric and customary units; convert within each system.
   f. Find temperature in degrees Celsius and Fahrenheit.
   g. Solve problems.

6. Geometry

   a. Find the perimeter, area, and volume of given geometric figures.
   b. Measure angles to the nearest degree; use letters to name them.
   c. Identify special triangles and quadrilaterals.
   d. Determine lines of symmetry in given figures.
   e. Construct a figure congruent to a given figure.
   f. Sort triangles according to attributes.
   g. Estimate the area of a given figure.
   h. Solve problems.

7. Probability and Statistics

   a. Predict outcomes in problems involving gathering, sorting, organizing, and tallying information.
   b. Read and interpret graphs and scale drawings.
   c. Find the average of a given set of numbers.
   d. Find a percent of a number.
   e. Find what percent one number is of another.

GRADES 7-8

Major Emphases

In the seventh and eighth grades, the skills developed in the elementary grades are reviewed and extended. The program offers students of all ability levels the opportunity to develop a better understanding of numbers, improve their ability to reason and be exposed to some exciting new areas of mathematics. The topics emphasized at these grade levels are operations on rational numbers, beginning algebra, informal geometry, measurement, graphs, scale drawings, elementary probability and statistics, and problem-solving. The use of calculators and computers to enhance and enrich the mathematics program is also encouraged.

Grade 7 Outline

1. Numeration

   a. Read and write word names for whole numbers.
   b. Read and write numerals for whole numbers.
   c. Name the value of digits.
   d. Round a number to a designated place.
   e. Compare two or more numbers.

2. Whole Numbers

   a. Estimate sums, differences, products, and quotients.
   b. Add, subtract, multiply, and divide whole numbers.
   c. Raise a whole number to a given power.
   d. Express a product in its exponential form.
   e. Find the square root of a number using a table or calculator.
   f. Determine factors.
   g. Identify and use number properties.
   h. Solve problems.

3. Fractions

   a. Read and write.
   b. Identify.
   c. Convert to equivalent fractions.
   d. Add, subtract, multiply, and divide.
   e. Estimate sums, differences, products, and quotients.
   f. Find the reciprocal of a given fraction.
   g. Compare any two fractions.
   h. Solve problems.

4. Decimals

    a. Read and write decimals.
    b. Read and write money values.
    c. Compare any two decimals.
    d. Round to tenths, hundredths, thousandths.
    e. Estimate sums, differences, products, and quotients.
    f. Add, subtract, multiply, and divide.
    g. Solve problems.

5. Ratio, Proportion, and Percent

    a. Express a comparison of two numbers as a ratio.
    b. Find the missing term of a proportion.
    c. Define percent.
    d. Convert fractions and decimals to percents.
    e. Solve problems.

6. Geometry

    a. Identify parts of geometric figures.
    b. Classify polygons.
    c. Classify lines.
    d. Identify and classify angles, triangles, and space figures.
    e. Identify parts of a circle.
    f. Construct segments, angles, and triangles.
    g. Bisect segments and angles.

7. Measurement

    a. Determine elapsed time.
    b. Determine length, width, and height of objects in customary and metric units.
    c. Determine capacity of liquids in customary and metric units.
    d. Determine the mass of objects in customary and metric units.
    e. Determine temperature in degrees Celsius and Fahrenheit.
    f. Solve problems involving length, liquid measure, and mass.
    g. Find the perimeter and area of polygons.
    h. Determine the area of a circle.

8. Probability and Statistics

    a. Construct, read, and interpret graphs, tables, maps, and charts.
    b. Locate points on maps and graphs.
    c. Determine the mean, median and mode for a given set of data.

9. Integers

    a. Compare any two integers.
    b. Arrange in increasing and decreasing order.

    c. Name the additive inverse of a given integer.
    d. Add and subtract.

Grade 8 Outline

1. Numeration
    a. Round a whole number to a designated place.
    b. Write numbers using scientific notation.

2. Whole Numbers
    a. Add, subtract, multiply, and divide.
    b. Estimate sums, differences, products, and quotients.
    c. Raise a number to a given power.
    d. Identify and use number properties.
    e. Use correct order of operations.
    f. Solve problems.

3. Fractions
    a. Read and write.
    b. Compare two fractions.
    c. Add, subtract, multiply, and divide.
    d. Estimate sums, differences, products, and quotients.
    e. Solve problems.

4. Decimals
    a. Read and write.
    b. Arrange in ascending or descending order.
    c. Round a decimal to a designated place.
    d. Add, subtract, multiply, and divide.
    e. Estimate sums, differences, products, and quotients.
    f. Multiply and divide by powers of ten.
    g. Solve problems.

5. Ratio, Proportion, and Percent
    a. Find the missing term of a proportion.
    b. Write fraction, decimal, and percent equivalents.
    c. Find the percent of a given number.
    d. Find a number when a percent of it is given.
    e. Find what percent one number is of another.
    f. Solve problems.

6. Geometry
    a. Classify geometric figures.
    b. Identify similar and congruent figures and their corresponding parts.
    c. Describe space figures.

   d. Use a compass and straight edge to copy geometric figures and their parts.
   e. Solve problems.

7. Measurement

   a. Determine the difference between two times.
   b. Determine the length, width, or height of objects using customary and metric units.
   c. Determine capacity using customary and metric units.
   d. Determine mass using customary and metric units.
   e. Read and record temperatures using Celsius and Fahrenheit scales.
   f. Find the perimeter and area of geometric figures, including the circumference of a circle.
   g. Find the volume and surface area of geometric figures.
   h. Solve problems.

8. Probability and Statistics

   a. Construct, read, and interpret graphs and charts.
   b. Compute distances using map scales.
   c. Graph on a number line.
   d. Identify and locate ordered pairs on a grid.
   e. Determine the mean, median, and mode of a set of data.
   f. Solve problems.

9. Integers

   a. Compare two integers.
   b. Arrange several integers in increasing and decreasing order.
   c. Find the absolute value of an integer.
   d. Name the additive inverse of a given integer.
   e. Add, subtract, multiply, and divide.
   f. Solve problems.

10. Real Numbers

   a. Find the square root of a number using a table, calculator, or algorithm.
   b. Use the Pythagorean Theorem to find the missing side of a right triangle.
   c. Solve problems.

11. Algebra

   a. Read and write simple algebraic expressions.
   b. Determine variables in an equation.
   c. Express basic mathematical and scientific principles as formulas.
   d. Find values of algebraic expressions.
   e. Find the solution to a simple linear equation or inequality.
   f. Solve problems.

GRADES 9-12

Major Emphases

The aim of the high school mathematics curriculum is to provide every student with appropriate mathematical content that is broad in scope. Some of the content should be immediately useful to students in their role as consumers and as part-time employees. The content must also enable students to study higher level mathematics. The mathematics curriculum then should have the flexibility to help prepare students for many different careers and vocations.

For students having a high aptitude in mathematics, courses in Algebra I, Geometry, Algebra II, and Advanced Mathematics are offered. In some schools this program is enriched by such courses as Calculus and computer-related mathematics. An alternative program consists primarily of courses in General Mathematics, Introductory Algebra (Parts 1 and 2), Technical Mathematics, and Consumer Mathematics. High schools should provide a remedial program to assist students in passing the Competency Test and in developing the necessary skills to enter other mathematics courses. The high school program should include the use of calculator and computers where feasible.

A basic high school mathematics program should contain the following course offerings:

Non-College Preparatory	College Preparatory
General Mathematics	Algebra I
Consumer Mathematics	Geometry
Technical Mathematics	Algebra II
Introductory Algebra (Part 1)	Advanced Mathematics
Introductory Algebra (Part 2)	Calculus
Other electives	Other electives

Shown in Figure 1 is a framework for planning secondary school mathematics programs. Beneath the myriad of choices is the basic opportunity of providing a sequence of mathematics courses that are alternatives to but coequal in mathematical value with the traditional Algebra I, Geometry, Algebra II, and Advanced Mathematics sequence.

Courses such as Algebra I, Algebra II, Geometry, and Advanced Mathematics have a reasonably well-defined core of content that is basically the same from class to class, school to school, and state to state. On the other hand, Consumer Mathematics, Technical Mathematics, and General Mathematics do not contain a body of fixed subject matter. Instead the subject matter can be drawn from any part of mathematics and related fields.

Several course outlines include suggestions of optional topics. It is hoped that the mathematically talented students will be provided the opportunity to study many of these topics.

Figure 1

The Mathematics Program Sequences, Grades 7-12

Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
			REGULAR SEQUENCE		
Mathematics 7	Mathematics 8	General Mathematics	Technical Mathematics		Consumer Mathematics
Mathematics 7	Mathematics 8	General Mathematics	Algebra I		*Business Mathematics
Mathematics 7	Mathematics 8	Introductory Algebra (Pt. I)	Introductory Algebra (Pt. II)	Geometry	Algebra II
Mathematics 7	Mathematics 8	Algebra I	Geometry	Algebra II	**Advanced Mathematics
			ACCELERATED SEQUENCE		
Mathematics 7 & 8	Algebra I	Geometry	Algebra II	**Advanced Mathematics	Calculus

*Business Mathematics is described in the curriculum guide for Business Education.

**Advanced Mathematics can be taught as a survey course or as a series of topical courses which could include Trigonometry, Analytic Geometry, Advanced Algebra, and Probability and Statistics.

In Figure 1, the grade level under which a course is listed indicates where it is ordinarily taught. However, this listing should be used only as a suggestion. With careful planning, any course listed might be taught at a different grade level.

General Mathematics Outline

1. Whole Numbers

    a. Round a whole number to a designated place.
    b. Arrange in increasing and decreasing order.
    c. Perform basic operations.
    d. Estimate sums, differences, products, and quotients.
    e. Compute averages and raise numbers to a given power.
    f. Find factors and multiples.
    g. Solve problems.

2. Decimals

    a. Round and compare.
    b. Perform basic operations.
    c. Estimate sums, differences, products, and quotients.
    d. Solve problems involving money.

3. Percent

    a. Convert decimals to percents and vice versa.
    b. Find a percent of a number.
    c. Find what percent one number is of another.
    d. Find a number when a percent of it is known.
    e. Solve problems.

4. Fractions

    a. Convert decimals to fractions and vice versa.
    b. Compare fractions.
    c. Add, subtract, multiply, and divide fractions and mixed numbers.
    d. Express a comparison of two numbers as a ratio.
    e. Find the missing term of a proportion.
    f. Convert fractions to percents and vice versa.
    g. Use fractions or proportions to solve problems.

5. Geometry

    a. Use geometric terms.
    b. Recognize lines and angles.
    c. Classify polygons and their properties.
    d. Identify circles and their properties.
    e. Recognize and use space figures.
    f. Solve problems.

6. Measurement

   a. Find perimeter, area, and volume of geometric figures.
   b. Solve problems involving time and temperature.

7. Probability and Statistics

   a. Read and interpret charts, tables, and diagrams.
   b. Read and interpret bar, circle, and line graphs.
   c. Read and interpret maps and scale drawings.
   d. Determine the mean, median, and mode from a given set of data.

8. Integers

   a. Represent integers on a number line.
   b. Add, subtract, multiply, and divide.
   c. Solve problems.

Technical Mathematics Outline

1. Whole Numbers and Integers

   a. Add, subtract, multiply, and divide.
   b. Estimate sums, differences, products, and quotients.
   c. Raise a number to a given power.
   d. Compare whole numbers and integers.
   e. Compute with integers.
   f. Use correct order of operations.
   g. Find the square root of a number using a table or a calculator.
   h. Solve problems.

2. Fractions

   a. Compare any two fractions.
   b. Compute with fractions and/or mixed numbers.
   c. Convert fractions to decimals.
   d. Express the comparison of two numbers as a ratio.
   e. Find the missing term of a proportion.
   f. Solve problems involving fractions and proportions.

3. Decimals

   a. Determine place value of digits in a decimal expression.
   b. Compare any two decimals.
   c. Add, subtract, multiply, and divide.
   d. Estimate sums, differences, products, and quotients by rounding.
   e. Use powers of ten in decimal expressions.
   f. Convert decimals to fractions.
   g. Find decimal, fraction, and percent equivalents.
   h. Solve problems involving decimals and percents.

4. Polynomials

    a. Use correct terminology.
    b. Add, subtract, and multiply monomials and polynomials.
    c. Use powers of monomials.
    d. Multiply monomials.
    e. Divide monomials.

5. Geometry

    a. Identify and classify lines and angles.
    b. Identify polygons and their properties.
    c. Identify circles and their properties.
    d. Perform basic geometric constructions.
    e. Solve problems involving geometric concepts.

6. Measurement

    a. Find the length, perimeter, and area of geometric figures.
    b. Find the mass of an object in customary and metric units.
    c. Find the volume/capacity of a quantity in metric and customary units.
    d. Convert and compare metric and customary units where necessary.
    e. Use denominate numbers.

7. Probability and Statistics

    a. Interpret and construct bar, line, and circle graphs.
    b. Use Cartesian coordinates to graph relations and functions.
    c. Interpret and construct maps and scale drawings.

8. Applications

    a. Use linear equations.
    b. Use formulas.
    c. Solve proportions.
    d. Use percent relationships.
    e. Apply the Pythagorean Theorem.
    f. Use right triangle trigonometry.

Consumer Mathematics Outline

1. Banking

    a. Complete deposit slips and checks.
    b. Reconcile bank statements.
    c. Use a table to find the interest on a simple interest loan.
    d. Use a compound interest table to find the interest on a loan.

2. Consumer Credit

    a. Complete a credit application.
    b. List the various types of credit plans.
    c. Determine the cost of credit insurance.

3. Housing

    a. Determine how down payments are set.
    b. Use a mortgage loan schedule.
    c. Compute property tax.
    d. Compute the insurance premium on a house.
    e. Compute utility bills.
    f. Compare renting to buying.

4. Insurance

    a. Compute and compare term and whole life insurance.
    b. Use a premium rate table to find the annual premium on various types of insurance.
    c. Compute hospitalization insurance.
    d. Determine property insurance.

5. Probability and Statistics

    a. Interpret bar, circle, and line graphs.
    b. Find the mean, median, and mode of a set of data.
    c. Compute the range of a set of data.

6. Money Management

    a. Compute piecework wages.
    b. Compute using hourly wage and overtime.
    c. Determine commission on sales.
    d. Find the cost of installment buying.
    e. Compute discounts.
    f. Compute social security deductions.

7. Savings and Investments

    a. Compare compound interest accounts and simple interest accounts.
    b. Compare a regular savings account and a certificate of deposit.
    c. Compute dividends on savings.
    d. Cite advantages and disadvantages of buying stock.

8. Sales and Income Tax

    a. Solve related problems.

9. Transportation

   a. Determine the down payment and monthly payment when purchasing a vehicle.
   b. Compute bodily injury and property damage insurance.
   c. Know how deductible collision insurance works.
   d. Calculate fuel consumption.
   e. Use the distance formula to determine the average speed, time, or distance when given the other two entries.

Introductory Algebra (Part I) Outline

1. Language of Algebra

   a. Simplify expressions.
   b. Use order of operations to simplify expressions.
   c. Convert word phrases to symbols.
   d. Evaluate expressions and formulas when replacement values are given.

2. Real Numbers

   a. Apply properties of zero and one.
   b. Use the associative and commutative properties.
   c. Apply the distributive property of multiplication over addition.

3. Number Theory

   a. Find factors of and perform divisibility tests on given numbers.
   b. Identify prime and composite numbers.
   c. Distinguish between even and odd numbers.
   d. List multiples of given numbers.

4. Fractions

   a. Find equivalent fractions and reciprocals of given fractions.
   b. Perform basic operations with numerical and algebraic fractions.

5. Linear Equations and Inequalities in One Variable

   a. Use properties of equality to solve equations.
   b. Use properties of inequality to solve inequalities.
   c. Use number lines to solve equations and inequalities.
   d. Convert words to mathematical symbols.
   e. Use formulas, ratio, proportion, and percent to solve problems.
   f. Solve equations involving absolute value.

6. Irrational Numbers

   a. Simplify square root radicals.
   b. Use in solving problems.

7. Linear Equations in Two Variables

   a. Locate points on a graph.
   b. Distinguish between relations and functions.
   c. Find the x- and y-intercepts of a line, given its equations.

8. Systems of Linear Equations with Two Variables

   a. Solve using addition and subtraction.
   b. Solve by graphing.
   c. Solve using the substitution method.
   d. Use systems of linear equations to solve problems.

9. Algebraic Fractions

   a. Simplify.
   b. Find sums and differences.
   c. Find products, conjugates, quotients.

Introductory Algebra (Part II) Outline

1. Rational Numbers

   a. Add, subtract, multiply, and divide.
   b. Use opposites and absolute value in computations.
   c. Use correct order of operations in computation.
   d. Evaluate exponential expressions.

2. Real Numbers

   a. Distinguish between and use rational and irrational numbers.
   b. Combine like terms to evaluate rational and irrational expressions.
   c. Add, subtract, multiply, and divide.

3. Equations and Inequalities in One Variable

   a. Solve equations using properties of equality.
   b. Solve inequalities using properties of inequality.
   c. Solve equations and inequalities using multiple transformations.
   d. Solve problems, including ones with ratio, proportion, and percent.

4. Relations and Functions

   a. Plot and read graphs of functions and relations in a coordinate plane.
   b. Distinguish between a relation and a function.

5. Exponential Expressions

   a. Apply rules of exponents to simplify expressions.
   b. Use scientific notation to write large and small numbers.

6. Radical Expressions

   a. Distinguish between and use rational, real, and imaginary numbers.
   b. Find products and quotients of expressions involving square roots.
   c. Find sums of radicals and radical expressions.

7. Polynomials

   a. Add, subtract, multiply, and divide.
   b. Simplify polynomial expressions by combining like terms.
   c. Find the greatest common factor in a polynomial expression.
   d. Factor trinomials.
   e. Factor the difference of two squares.
   f. Recognize perfect square trinomials.

8. Linear Equations in Two Variables

   a. Find and plot ordered pairs on a coordinate plane.
   b. Find x- and the y-intercepts of a line in the coordinate plane.
   c. Determine the slope of a line, given its equation.
   d. Graph equations on a coordinate plane.

9. Systems of Linear Equations

   a. Solve using addition and subtraction.
   b. Solve using multiplication and division.
   c. Solve by graphing.
   d. Solve by determinants.
   e. Use systems of linear equations to solve problems.

10. Algebraic Fractions

   a. Find common factors.
   b. Find sums and differences.
   c. Determine least common multiples.
   d. Find products and quotients.

11. Quadratic Equations

   a. Graph quadratic equations.
   b. Find the zeros of a quadratic equation.
   c. Solve by factoring.
   d. Solve by completing the square.
   e. Solve by using the Quadratic Formula.

Algebra I Outline

1. Language of Algebra

   a. Simplify and evaluate expressions.
   b. Use order of operations to evaluate expressions.

   c. Convert word phrases into mathematical symbols.
   d. Evaluate formulas.

2. Rational Numbers

   a. Use the commutative and associative properties.
   b. Use the distributive property of multiplication over addition.
   c. Identify and use the multiplicative inverse of a given number.
   d. Compare two rational numbers.
   e. Convert fractions to decimals and vice versa.

3. Relations and Functions

   a. Graph relations and functions using number lines and the rectangular coordinate plane.
   b. Graph linear equations and inequalities.
   c. Graph using the slope-intercept method.
   d. Find square roots using a table or a calculator.
   e. Find the union and intersection of sets.

4. Linear Equations and Inequalities in One Variable

   a. Use the addition and subtraction properties of equality and inequality.
   b. Use the multiplication and division properties of equality and inequality.
   c. Solve equations and inequalities with fractional coefficients.
   d. Solve equations involving absolute values.
   e. Solve problems.

5. System of Linear Equations

   a. Solve by using addition and subtraction.
   b. Solve by the substitution method.
   c. Solve by graphing.
   d. Use systems of linear equations to solve problems.

6. Polynomials

   a. Add and subtract.
   b. Multiply monomials and powers of monomials.
   c. Multiply and divide polynomials.
   d. Factor polynomials.

7. Quadratic Equations

   a. Solve by factoring.
   b. Solve by completing the square.
   c. Use the Quadratic Formula to solve.
   d. Use quadratic equations to solve problems.

8. Algebraic Fractions

   a. Simplify.
   b. Solve proportions.
   c. Multiply and divide.
   d. Add and subtract.
   e. Solve equations with algebraic fractions.
   f. Use proportions and algebraic fractions to solve problems.

9. Radical Expressions

   a. Simplify products and quotients.
   b. Simplify sums and differences.
   c. Solve equations containing radical expressions.

Geometry Outline

1. Sets of Points

   a. Find the measure of an angle using a protractor.
   b. Identify the bisector of an angle.
   c. Find the coordinate of a point on a line or coordinates of a point in a plane.
   d. Find the midpoint of a line segment.
   e. Identify and name lines, rays, segments, and planes.

2. Real Numbers

   a. State and use properties of equality and inequality.

3. Geometric Proofs

   a. Write two-column proofs.
   b. State the converse, hypothesis, and conclusion of conditional statements.
   c. Write an indirect proof.
   d. Use the process of deductive reasoning in mathematical and nonmathematical situations.

4. Angles and Lines

   a. Identify adjacent and vertical angles.
   b. Determine the complement and supplement of a given angle.
   c. Apply angle addition and segment addition postulates.
   d. Classify angles.
   e. Recognize congruent angles.

5. Perpendicular Lines and Planes

   a. Apply definitions of perpendicular lines and planes.

6. Parallel Lines and Planes
    a. State which angles are congruent when parallel lines are cut by a transversal.
    b. State which angles are supplementary when parallel lines are cut by a transversal.

7. Polygons
    a. Classify polygons.
    b. Find the measures of exterior and interior angles of polygons.
    c. Complete proofs involving polygons.

8. Triangles
    a. Classify triangles.
    b. Use various postulates and theorems to prove two triangles congruent.
    c. Identify the corresponding parts of congruent triangles.

9. Similarity
    a. Identify similar polygons.
    b. Prove triangles are similar.
    c. Apply properties of similar triangles.

10. Right Triangles
    a. State and apply relationships that exist in right triangles.
    b. Use table and/or calculator to apply definitions of sine, cosine, and tangent.

11. Circles
    a. Apply theorems involving arcs, angles, and chords of a circle.
    b. Apply theorems that related to tangents, secants, and radii of a circle.

12. Perimeter, Area, and Volume
    a. Compute perimeter and area of geometric figures.
    b. Compute lateral area, total area, and volume of pyramids, cylinders, and cones.

13. Geometric Constructions
    a. Complete constructions related to angles and segments.
    b. Construct perpendicular and parallel lines.
    c. Circumscribe and inscribe circles.
    d. Construct quadrilaterals meeting certain criteria.

14. Coordinate Geometry

    a. Apply distance and midpoint formulas.
    b. Find slopes and y-intercepts of lines.
    c. Write the equation and draw the graph of a line given two points on the line, one point and the slope, or the slope and y-intercept of the line.

Algebra II Outline

1. Language of Algebra

    a. Evaluate expressions.
    b. Convert word phrases into mathematical symbols.
    c. Apply the properties of the real number system.

2. Relations and Functions

    a. Graph relations and functions using number line and the rectangular coordinate plane.
    b. Graph systems of linear equations and inequalities.
    c. Graph conic sections.

3. Real Numbers

    a. Add, subtract, multiply, and divide.
    b. Evaluate expressions which involve exponents.

4. Linear Equations and Inequalities

    a. Solve linear equations and inequalities.
    b. Solve equations and inequalities containing absolute value components.
    c. Solve literal equations and formulas.

5. Systems of Linear Equations

    a. Solve two linear equations in two variables by various methods.
    b. Solve three linear equations in three variables.
    c. Use Cramer's Rule to solve systems of linear equations.
    d. Use determinants to solve systems of linear equations.

6. Polynomials

    a. Add and subtract.
    b. Multiply and use special product formulas.
    c. Divide and use synthetic division.
    d. Factor.
    e. Use the Binomial Theorem.

7. Algebraic Fractions

    a. Multiply and divide.
    b. Add and subtract.
    c. Simplify complex fractions.
    d. Solve equations with algebraic fractions.

8. Radical Expressions

    a. Simplify radicals.
    b. Use fractional exponents.
    c. Find sums and differences of radicals.
    d. Find products and quotients of radicals.
    e. Solve equations with radical expressions.

9. Quadratic Equations

    a. Solve by completing the square.
    b. Use the Quadratic Formula to solve.
    c. Solve systems of two equations by various methods.

10. Complex Numbers

    a. Add and subtract.
    b. Multiply and divide.
    c. Solve quadratic equations with complex roots.

11. Analytic Geometry

    a. Use the distance formula.
    b. Find the midpoint of a line segment.
    c. Find the slope of a line.
    d. Find the equation of a line.
    e. Determine parallel and perpendicular lines.
    f. Use the Pythagorean Theorem.
    g. Explore conic sections.

12. Variation

    a. Solve problems involving direct, inverse, and joint variation.

13. Series

    a. Find the arithmetic mean of a series.
    b. Compute the sum of an arithmetic series.
    c. Find the geometric mean of a series.
    d. Find the sums of finite and infinite geometric series.

14. Exponential Functions

    a. Solve problems using logarithms.
    b. Solve problems involving exponential functions.

15. Techniques for Problem-Solving

    a. Use the Fundamental Counting Principle.
    b. Compute using permutations and combinations.
    c. Employ single probability principles.
    d. Solve "word problems".

16. Trigonometry

    a. Find the sine and cosine of an angle.
    b. Find the values of the six trigonometric functions of an angle.
    c. Solve right triangles given certain information.
    d. Solve problems.

Advanced Mathematics Outline

1. Functions

    a. Distinguish between relations and functions.
    b. Find the domain, range, and zeros of a given function.
    c. Determine and use various types of functions.
    d. Find limits and maximum/minimum points of a given function.
    e. Distinguish between continuous and discontinuous functions.

2. Polynomials

    a. Find the value of a polynomial at a given point.
    b. Use the Remainder Theorem and Factor Theorem to evaluate.
    c. Use synthetic division to evaluate.
    d. Use the Fundamental Theorem of Algebra to evaluate.

3. Trigonometry

    a. Use a table or a calculator to find values of trigonometric functions.
    b. Solve trigonometric identities.
    c. Solve trigonometric equations.
    d. Find the amplitude and period of a trigonometric function.
    e. Solve right triangles.
    f. Use the Law of Sines and Law of Cosines to solve triangles.
    g. Find inverses of given trigonometric functions.

4. Analytic Geometry

    a. Find the midpoint and slope of a line segment.
    b. Find the equation of a line.

   c. Find equations of parallel and perpendicular lines.
   d. Find equations of parabolas, circles, ellipses, and hyperbolas.

5. Mathematical Induction

   a. Prove or disprove given mathematical statements.

6. Arithmetic and Geometric Sequences and Series

   a. Find the nth term of an arithmetic or geometric series.
   b. Compute arithmetic and geometric means.
   c. Find the sums of terms of geometric and arithmetic series.
   d. Use sigma notation.
   e. Distinguish between convergent and divergent series.

7. Matrices and Determinants

   a. Add.
   b. Multiply.
   c. Find inverses.
   d. Solve a system of simultaneous equations with matrices.
   e. Use determinants and Cramer's Rule to solve systems of equations.

8. Probability and Statistics

   a. Use the Fundamental Counting Principle.
   b. Compute permutations and combinations.
   c. Use the Binomial Theorem.

9. Algebraic Equations and Inequalities

   a. Solve quadratic equations.
   b. Solve systems of simultaneous linear equations.
   c. Solve linear and quadratic inequalities.
   d. Solve exponential equations.
   e. Find all rational roots of a higher order equation.

10. Vectors

   a. Add, subtract, and multiply.
   b. Compute the magnitude and direction of a given vector.
   c. Determine and use parallel and perpendicular vectors.

11. Complex Numbers

   a. Add, subtract, multiply, and divide.
   b. Solve quadratic equations with complex roots.
   c. Convert complex numbers from rectangular to trigonometric form and vice versa.
   d. Use DeMoivre's Theorem.

12. Graphing

    a. Plot and solve linear equations and inequalities on the rectangular coordinate plane.
    b. Plot and solve quadratic equations and inequalities on the rectangular coordinate plane.
    c. Distinguish between functions and inverses using graphs.
    d. Graph trigonometric functions.
    e. Plot exponential and logarithmic functions on the rectangular coordinate plane.

13. Logarithms

    a. Use tables and a calculator to find logarithms and antilogarithms.
    b. Use logarithms to evaluate products, quotients, powers, and roots.
    c. Solve problems.

SCIENCE

PURPOSE AND OVERVIEW

The primary goal of American education is to develop thinking and reasoning ability. The nature of science readily lends itself to this central purpose. Thus, the science curriculum, by emphasizing rational thought processes through active participation in scientific methods, will ensure that each child will become scientifically literate. Achieving scientific literacy is essential if an individual is to successfully cope with a rapidly changing scientific and technological world. It is most important that science instruction be available to each child at all grade levels.

The science program meets the basic needs of all students when appropriate emphasis is placed on four major goal clusters*:

1. Personal Needs that prepare individuals to utilize science for improving their lives and for coping with an increasingly technological world,

2. Societal Issues that produce informed citizens prepared to deal responsibly with science-related social problems,

3. Academic Preparation that allows students who are likely to pursue science academically as well as professionally to acquire knowledge appropriate to their needs, and

4. Career Education/Awareness that gives all students an awareness of the nature and scope of a wide variety of science and technology-related careers open to students of varying aptitudes and interests.

The goals of science education, realized through science instruction, are to:

1. Understand certain scientific concepts and facts.

2. Develop the skill to manipulate and/or operate science equipment.

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*Harms, Norris C., and Yager, Robert E., eds. What Research Says to the Science Teacher, Volume 3. National Science Teachers Association, 1981.

3. Become proficient in using science process skills: observing, predicting, interpreting data, classifying, controlling variables, inferring, formulating hypotheses, experimenting, measuring, formulating models, communicating, using numbers, defining operations, and using space/time relationships.

4. Acquire attitudes necessary for living successfully in and contributing positively to a technological society.

5. Foster intellectual development.

6. Develop an appreciation for the uses, benefits, and limitations of science to society.

7. Develop problem-solving and decision-making skills.

8. Foster creativity as a human endeavor.

The science curriculum is based on a continuum of fundamental concepts and skills from kindergarten through grade 12. A balanced curriculum is offered through the study of the three major areas of science--biological, physical, and earth/space.

Students gain a greater understanding of the fundamental concepts and become more proficient in the skills of science as they progress from the lower to the upper grades. Concepts and skills serve as the basic framework for the science program in grades K-12.

The child's first experiences with science, from the earliest grades, should involve aspects of experimental inquiry. Use is made of all the senses in developing such skills as observing, measuring, classifying, using numbers, and communicating. Three important aspects of science--process (doing), content (knowledge), and attitudes (feelings and values)--are kept in the forefront during all phases of planning and instructing. The three cannot be totally separated. To help assure success, learning experiences must be presented at the appropriate developmental level for each student. In this way, the end product is rewarding and provides each student with a sense of accomplishment. Laboratory and field work are very important to the teaching of science at all levels. These activities provide ways for making science more understandable and meaningful.

Current science and technology provide many opportunities for a student to select and prepare for a science or science-related occupation. A well-balanced science curriculum provides students with an awareness of educational and career opportunities available through: (1) study of the historical development of science, (2) study of science technological advances, (3) use of nonschool resource persons, (4) field trips, and (5) on-site studies. Such activities enhance self-development, attitudes toward work, decision-making, and appreciation of various lifestyles.

Careful selection of course content and instructional aids for the various grade levels and individual courses is done to ensure that each child will have an understanding of basic science concepts and have the capability to use the processes of science. Because of individual differences, students will develop competence in science unique to themselves. The curriculum is designed for all students. Variation is made by instructional leaders and teachers in the local school units in the final selection of methods of instruction and strategies to be used with students of varying abilities and interests.

Elementary science (K-6) is considered an essential component of the elementary curriculum and should be taught daily throughout the year. Science instruction at this level is of an integrated nature with studies during each year emphasizing various areas of earth, physical, and life sciences. The curriculum is experiential, with major emphasis on concrete learning experiences.

In grades 7 and 8, the study of science is an integrated form of life, earth, and physical science; instructional time and depth of content are increased. Content should be presented from a student-centered perspective, placing emphasis on the nature of science and inquiry. Instruction should be largely laboratory-oriented, stressing scientific methods through application of process skills. Problem-solving and reasoning are essential experiences in the learning process. Scientific inquiry deals with both academic and real world problems. Personal needs, societal issues, and academic and career preparation are interwoven into the course content. Energy, environmental concerns, and recent advances in science technology permeate the curriculum.

Beginning in grade 9, the student starts studying a single subject or area of science such as physical science or biology on a year-long basis. There is a continuation of presenting content with emphasis on the nature of science and scientific inquiry. Students in grades 9-12 are encouraged to enroll in elective science courses in addition to the basic graduation requirements. To increase student enrollment and provide a more comprehensive science curriculum, two types of courses are offered.

One type, applied/technical, is designed for the secondary student who is interested in a program which places emphasis on the practical and applied aspects of science. These courses should stress doing science through the use of manipulatives and laboratory work, presenting science as a practical and relevant subject. Math requirements are limited to basic functions. The courses emphasize socially relevant topics and recent developments in science. The basic philosophy reflects an attitude that science is a process of finding out about our universe, is understandable, and that anyone can achieve and benefit from learning science. A wide variety of evaluation techniques is employed for measuring achievement of course objectives. In determining grades, major emphasis is placed on laboratory and project work that involves problem-solving. Pencil and paper tests play a minor role in evaluation.

The second type of course is designed for the more academically inclined student. Students electing these courses for graduation requirements are also allowed to enroll in applied/technical courses as electives and vice versa. The academic courses are challenging and reflect a philosophy of science as inquiry. Emphasis is placed on using current technology as students investigate relevant problems through research and project work. The courses demand competence in communication and mathematical skills. Course content centers on current developments and includes socially relevant issues. Evaluation techniques are varied and test questions are phrased to require responses involving high-level thinking. Memorization of low-level factual information is de-emphasized.

COURSE OF STUDY

K-6
Elementary Science

7-8
Integrated Science

9-12

Academic Courses*	Applied/Technical Courses*
Physical Science	Physical Science
Biology	Biology
Earth Science	Earth Science
Chemistry	Chemistry
Physics	Physics

*Students may take courses from either or both groups.

Some high schools offer advanced courses (2nd year), advanced placement courses (college first level), and enrichment courses. Course outlines and final examinations for the advanced placement courses are provided by the College Entrance Examination Board. Topics and areas of science included in the advanced courses (2nd year) and in the enrichment courses are determined by the particular desires and interests of the students for whom the courses are provided. Such courses are designed at the local school system level. Variation within these courses reflects the particular desires and interests of students throughout the state. These elective courses may include Advanced Biology, Advanced Chemistry, Anatomy and Physiology, Applied Science, Astronomy, Geology, Field Botany, Environmental Studies, Advanced Physics, Aviation Science, Independent Study, and others appropriate to the local science program.

The science competency-based curriculum:

- is designed for statewide use.
- offers flexibility for local curriculum development.
- is not correlated with any textbook and does not restrict the use of any relevant textbook or program.
- encourages the offering of a series of courses suitable to the varying abilities of all students.
- assumes that there are individual differences among students and that the degree and rate of achievement will vary among them.
- assumes that teachers are different and will approach the teaching of science differently.
- stresses concept learning and process skills attainment through activity-oriented science programs.

LEARNING OUTCOMES

The learning objectives listed below are the basis for the total framework of the science curriculum. The objectives are composed of concepts, attitudes, and process skills. These permeate the curriculum. Careful attention should always be given to them when program development and/or instructional planning are being done.

1. Concepts
    a. Biological
        (1) There are many kinds of living things.
        (2) The basic unit of living things is the cell.
        (3) Living things exhibit basic similarities and differences.
        (4) Living things grow, develop, reproduce, and die.

(5) Living things are a product of heredity and environment.
(6) Living things exist in a state of interdependence.

b. Physical

(1) All matter is composed of tiny particles called atoms.
(2) Matter takes up space and has mass.
(3) Matter exists as a solid, liquid, or gas.
(4) Energy and matter interact to produce changes.
(5) Energy takes many forms and can be converted from one form to another.
(6) Universal forces (gravitational, magnetic, electrical, and nuclear) affect all objects.
(7) Matter and energy are conserved.

c. Earth/Space

(1) The sun is the earth's chief source of energy.
(2) The earth's atmosphere, lithosphere, and hydrosphere are always changing and interacting.
(3) The position and movement of the Earth in space causes many changes such as the seasons and day and night.
(4) The earth/moon interaction exhibits various effects.
(5) Rocks and fossils provide evidence of the earth's history.
(6) Universal forces affect the solar system, stars, and galaxies.

2. Attitudes (Positive) Toward:

a. The contributions of science and technology in shaping the world.

b. The role of science in helping people meet their responsibilities to society.

c. The need for conservation, preservation, and wise use of natural resources.

d. The learning and experiencing of science.

e. The use of scientific inquiry as a way of thinking and evaluating all human activity.

f. The uncertainties that underlie many of the laws of science.

g. The historical background of science.

3. Process Skills

a. Observing
b. Classifying
c. Using space/time relations
d. Using numbers
e. Communicating
f. Measuring
g. Inferring
h. Predicting
i. Interpreting data
j. Controlling variables
k. Defining operationally
l. Formulating hypotheses
m. Experimenting
n. Formulating models

Process Skills Defined:

a. Observing involves using one or more of the senses in perceiving properties or similarities and differences in objects and events. Observations can be made directly with the senses or indirectly through the use of simple or complex instruments. Observations are influenced by the previous experience of the observer.

b. Classifying involves the sorting or ordering of objects according to their properties or similarities and differences. Classification is based on observational relationships which exist between objects or events.

c. Using space/time relations means describing the spatial relationships of objects and their change with time. Examples of this process skill are motion, direction and spatial arrangement, symmetry, and shape.

d. Using numbers is a means of quantifying measurements or comparisons. Numbers are needed to manipulate measurements, order, and classify objects.

e. Communicating involves the transmission of observable data. Examples of communication media are spoken or written words, graphs, drawings, diagrams, maps, and mathematical equations. Such skills as asking questions, discussing, explaining, reporting, and outlining can aid the development of communication skills.

f. Measuring is the ordering of things by magnitude such as area, length, volume, and mass. Measuring helps quantify observations. The process can involve the use of instruments and the skills needed to effectively use them.

g. Inferring involves the use of logic to make conclusions from observations. Inferring suggests explanations, reasons, or causes for events. Inferences are based on judgments and are not always valid.

h. Predicting involves suggesting what will occur in the future. Predictions are based on observations, measurements, and inferences about relationships between or among observed variables. Prediction is speculation of what will happen based on past experiences. Accuracy of a prediction is closely affected by the accuracy of the observation.

i. Interpreting data is a complex skill involving many of the other process skills. It involves making predictions, inferences, and hypotheses from a set of data. Interpretations may need revision when additional data are obtained.

j. Controlling variables is the managing of the conditions or factors in an experiment. Unless the variables of an experiment can be carefully regulated, the results of the experiment are not reliable.

k. Defining operationally is stating definitions in working terms. Such definitions limit the meaning of a term to "what is done" and "what is observed." Example of a working definition: A dry cell, when properly connected with two wires and a light bulb, will cause the bulb to glow.

l. Formulating hypotheses involves forming a generalization question based on observations. The hypothesis is a problem to be solved through using other process skills, especially experimenting. Questions, inferences, and predictions can lead to the formation of a hypothesis. The hypothesis must be tested if its credibility is to be established.

m. Experimenting involves testing a hypothesis under controlled conditions in which variables are limited. Experimenting is basic to the total scientific process and uses all of the other process skills.

n. Formulating models is a useful way of describing and explaining interrelationships of ideas. A model can be a mental, physical, or verbal representation of an idea. Models represent what we know about an idea or concept and are constantly changing as new data are obtained.

GRADES K-3

Major Emphases

Emphasis is placed on the curiosity and exploratory nature of the child. Instruction centers on daily phenomena of nature from which one develops a central storehouse of experiences--light and dark, cold and heat, motion and rest, forms of matter and life. Such experiences, through manipulative "hands-on" activities, provide opportunities for the use and development of science skills and lead gradually to the understanding of basic science and environmental concepts. Making use of out-of-class resources such as field trips, visits to zoos and museums, outside speakers and presenters also is important. With these children, development of science process skills is more important than a correct answer or finished product. A balanced program is provided by placing emphasis on the concepts related to each of the broad areas of science--biological, physical, earth/space. In selecting and planning experiences, careful attention must be given to the physical and intellectual development of each child. Science at this level should always be an enjoyable and "doing" experience.

Kindergarten offers a unique and rich environment for studying science. Emphasis centers on readiness skills that help refine and develop the child's sensory mechanisms. Readiness skills and science knowledge may well be attained through experiences encompassing an integration of various content areas. Subject matter studied and "hands-on" experiences of children relate to their past experiences and present environment. Science concepts and process skills are acquired as children learn to observe, describe, and discriminate among objects and organisms. The student is given the opportunity to observe and experience the properties of matter such as color, size, shape, texture, smell, and weight, and to work with plants, animals, and numbers.

As children progress beyond kindergarten, they are ready for more formal science experiences. The program provides more concrete, manipulative "hands-on" experiences which give broad coverage to science in general. These experiences assist the child in developing an understanding of matter, energy, motion, time, space, diversity, interaction, and change.

Grade K Outline

1. Life Science

    1.1 Plants and animals
    1.2 The human body
    1.3 The senses

2. Physical Science

  - 2.1 Basic properties of matter (color, size, shape, texture, odor, taste, sound)
  - 2.2 Position of objects
  - 2.3 Quantity of objects
  - 2.4 Change in the environment

3. Earth Science

  - 3.1 Air
  - 3.2 Soil
  - 3.3 Water
  - 3.4 Weather

Grade 1 Outline

1. Life Science

  1.1 How animals are alike and different

    - a. size and shape
    - b. color
    - c. habits
    - d. movement
    - e. homes
    - f. sounds

  1.2 Needs of animals

    - a. water
    - b. food
    - c. oxygen
    - d. shelter
    - e. space

  1.3 Care of animals

    - a. farm animals
    - b. pets
    - c. wild animals

  1.4 How plants are alike and different

    - a. color
    - b. size
    - c. habitat

- 1.5 Needs of plants
  - a. water
  - b. soil
  - c. light
  - d. air
  - e. temperature

2. Physical Science

- 2.1 Matter
  - a. properties of matter
  - b. common materials
  - c. measuring

- 2.2 Sources of energy
- 2.3 Chemical changes in matter
- 2.4 Heat sources
- 2.5 Wave energy
  - a. light (mirrors, shadows)
  - b. sound (producing sound, voice, musical instruments)

- 2.6 Mechanical energy (examples of machines, force--push or pull)
- 2.7 Electrical energy--magnets

3. Earth Science

- 3.1 Rocks--properties
- 3.2 Earth--our home and its history
- 3.3 Air and water properties

Grade 2 Outline

1. Life Science

- 1.1 Animals around us
  - a. physical description
  - b. habitat
  - c. food habits
  - d. growth and development

- 1.2 Animals in their environments
  - a. food
  - b. homes
  - c. coats
  - d. protective coloration

    - e. hibernation
    - f. migration

  - 1.3 Plants around us

    - a. physical description
    - b. growth

  - 1.4 How people use plants and animals

2. Physical Science

  - 2.1 Matter

    - a. kinds of matter
    - b. floating and sinking
    - c. measuring matter

  - 2.2 Forms of energy
  - 2.3 Chemical energy
  - 2.4 Measuring heat energy
  - 2.5 Wave energy

    - a. light (eye, colors)
    - b. sound (transmission of sound waves, ear)

  - 2.6 Mechanical energy

    - a. how machines help us do work
    - b. forces--push or pull

  - 2.7 Electrical energy

    - a. magnets (natural magnets, making magnets)
    - b. static electricity
    - c. current electricity (methods of producting electricity, safety)

3. Earth Science

  - 3.1 Weather
  - 3.2 Water
  - 3.3 Ancient ancestors--dinosaurs
  - 3.4 Solar system

    - a. sun (nature of the sun, distance to the sun, source of energy)
    - b. moon
    - c. planets (nature of planets, names of planets)

  - 3.5 Universe--stars

Grade 3 Outline

1. Life Science
    - 1.1 Helpful and harmful plants and animals
    - 1.2 Defense mechanisms
    - 1.3 Plant and animal reproduction
    - 1.4 Interdependence of animals and plants
        - a. balance of nature
        - b. people's effect on the balance of nature
        - c. conservation
    - 1.5 Differences between living and nonliving things
2. Physical Science
    - 2.1 Matter
    - 2.2 Forms of energy
    - 2.3 Chemical and physical change
    - 2.4 Heat energy
        - a. temperature measurement
        - b. home temperature control
    - 2.5 Wave energy
        - a. light (camera, optical instruments)
        - b. sound (wave nature of sound, speed of sound, music)
    - 2.6 Mechanical energy
    - 2.7 Electrical energy
        - a. magnets (electromagnets, compass, uses of magnets)
        - b. static electricity
        - c. electric current (nature of electric current, safety)
3. Earth Science
    - 3.1 History of the Earth
    - 3.2 Rock types
    - 3.3 Soil
        - a. formation
        - b. types

3.4 Water cycle

  a. ocean
  b. air
  c. ground

3.5 Forces changing the earth

  a. weathering
  b. erosion
  c. earthquakes
  d. volcanoes

3.6 Time

  a. day and night
  b. seasons
  c. year

3.7 Moon

3.8 Space

  a. rockets
  b. satellites
  c. space travel
  d. benefits to people

GRADES 4-6

Major Emphases

The intermediate grades science program is characterized by a continuation of the utilization of skills and the development of major science concepts that began at the primary level. Balanced coverage is given to the broad areas of science--living things, matter and energy, earth and space. The curriculum reflects the nature of the learner and the developmental stages of students. Science instruction allows the student to experience abstract science through concrete learning activities. Instruction should be largely laboratory-centered with stress on scientific methods through application of scientific process skills. Students have manipulative experiences that involve the construction and use of simple lab equipment with special emphasis on safety. The development of problem-solving and reasoning skills is an essential part of the learning process. Inquiry methods are used to deal with real problems that are relevant to the student. Emphasis is placed upon the use of the integrative processes of science: controlling variables, formulating hypotheses, interpreting data, and designing experiments.

Personal needs, community and societal issues, and career awareness should be woven into the course content. The methods for doing this will vary among schools and teachers. Energy, environmental concerns, and recent advances in science and technology also permeate the curriculum.

Grade 4 Outline

1. Introduction

    1.1 What is science
    1.2 How science helps us
    1.3 Branches of science
    1.4 Current events

2. Living Things--Animals

    2.1 How animals are alike and different--characteristics
    2.2 One-celled animals
    2.3 Care of animals and their young
    2.4 Adaptation to environment
    2.5 Helpful and harmful animals
    2.6 Genetic changes in animals
    2.7 Interdependence of animals

3. Matter and Energy

    3.1 Metric measurement system
    3.2 Properties of matter
    3.3 States of matter
    3.4 Solutions and mixtures
    3.5 Crystals
    3.6 Atomic structure
    3.7 Elements and compounds
    3.8 Molecules and atoms
    3.9 Matter and energy
    3.10 Mechanical energy

4. Earth--Atmosphere

    4.1 The earth's atmosphere
    4.2 Weather and climate

5. Space

    5.1 Solar system
    5.2 Meteors and comets
    5.3 The universe

Grade 5 Outline

1. Introduction

    1.1 What is science
    1.2 How science helps us
    1.3 History of science and scientists
    1.4 Current events

2. Living Things--Plants

    2.1 Basic characteristics
    2.2 Classification of plants
    2.3 What plants need to live and grow
    2.4 Life processes of plants
    2.5 Interdependence of plants and animals
    2.6 Inheritance in plants
    2.7 Economic importance of plants

3. Energy

    3.1 Potential and kinetic energy
    3.2 Sources of energy
    3.3 Forms of energy
    3.4 Uses of energy
    3.5 Relationships between matter and energy
    3.6 Heat sources
    3.7 Temperature measurements
    3.8 Heat transfer
    3.9 Home temperature control
    3.10 Heat engines
    3.11 Conservation
    3.12 Molecular theory of heat

4. Earth Science

    4.1 History of the earth
    4.2 Land and water formations
    4.3 Earth's crust and layers
    4.4 Rocks and minerals
    4.5 Soil and water

5. Environment

    5.1 Natural resources
    5.2 Pollution

Grade 6 Outline

1. Introduction

    1.1 What is science
    1.2 How science helps us
    1.3 Economic importance of science
    1.4 Careers in science and technology
    1.5 Current events

2. Living Things--Humans

    2.1 Our bodies: parts and functions
    2.2 Care of the body
    2.3 Diseases

3. Matter and Energy

    3.1 Physical and chemical changes
    3.2 Chemical shorthand
    3.3 Atomic structure
    3.4 Electrical energy and magnetism
    3.5 Properties of wave motion

4. Space Exploration

    4.1 Rockets
    4.2 Satellites
    4.3 Space travel
    4.4 Benefits to people

5. Ecology

    5.1 Populations
    5.2 Communities
    5.3 Ecosystems

GRADES 7-8

Major Emphases

The middle grades science curriculum is characterized by the study of basic life, earth, and physical science concepts. Skills and concepts introduced in the lower grades are further extended and developed. For the first time, the student is introduced to an in-depth, year-long course of integrated science.

The curriculum reflects the nature of the middle grade learner. Consideration is given to the developmental stages (physical and cognitive) of students and the need for experiencing abstract science through concrete learning activities. This implies that instruction should be directed to individuals as well as groups. This also implies that instruction should be largely laboratory-centered with stress on scientific methods through application of scientific process skills. The development of problem-solving and reasoning skills is an essential part of the process. Inquiry methods are used to deal with real world problems that are socially and personally relevant. Emphasis is placed upon the use of the integrative processes of science: controlling variables, formulating hypotheses, interpreting data, and designing experiments.

Personal needs, societal issues, and academic and career preparation are woven into the course content. The methods for doing this will vary among schools and teachers. Energy, environmental concerns, and recent advances in science and technology also permeate the curriculum.

In summary, the middle grades science program:

- builds and further develops basic skills and concepts introduced in elementary grades.
- provides concrete experiences with emphasis on problem-solving and logical reasoning.
- provides an integrated exploratory approach which covers earth, physical, and life sciences.
- emphasizes career exploration in the sciences and technology.
- provides for interaction with other disciplines.
- provides decision-making opportunities so students can evaluate personal and societal implications of science and technology.
- provides opportunities for the use of local resources (zoos, science centers, museum specialists).
- makes use of current technology (microcomputers, television, calculators).

Grade 7 Outline

1. Science and Its Relationship to Human Endeavor

    1.1 The nature of science
    1.2 Laboratory safety
    1.3 Recent advances in science and technology

- 1.4 Science-related careers--overview
- 1.5 Measurement
- 1.6 Current societal issues related to science

2. The Scope of Life Science

   - 2.1 Major components of life science
   - 2.2 Differences between living and nonliving things

3. Human Growth and Development

   - 3.1 Organization of the body
   - 3.2 Human growth patterns

4. Organization and Variety of Living Things

   - 4.1 Cells
   - 4.2 Hierarchy (cells to organisms)
   - 4.3 Major types
   - 4.4 Characteristics of plants and animals
   - 4.5 Characteristics of protists, fungi, and monerans

5. Plant and Animal Communities

   - 5.1 Populations
   - 5.2 Energy flow
   - 5.3 Limiting factors
   - 5.4 Interaction of people and the environment

6. The Scope of Earth Science

   - 6.1 Components of earth science
   - 6.2 Earth as a moving body in space
   - 6.3 Mapping of the earth

7. Earth Forms and Natural Phenomena

   - 7.1 Minerals
   - 7.2 Rocks
   - 7.3 Weathering
   - 7.4 Soils
   - 7.5 Hydrologic cycle
   - 7.6 Oceans
   - 7.7 Shorelines

8. Meteorology and Climatology

   - 8.1 Structure of the atmosphere
   - 8.2 Role of the sun
   - 8.3 Energy and atmospheric circulation
   - 8.4 Cloud formation and precipitation
   - 8.5 Nature of climate
   - 8.6 Physical factors that affect climate
   - 8.7 Climate types

9. Astronomy and Space Exploration

   - 9.1 Solar system
   - 9.2 Historical space events

10. The Scope of Physical Science

   - 10.1 Components of physical science
   - 10.2 The need to study physical science

11. Chemical Phenomena

   - 11.1 Atom
   - 11.2 Atomic structure
   - 11.3 Compounds and mixtures
   - 11.4 Chemical reactions

12. Physical Phenomena

   - 12.1 Measurement
   - 12.2 Work
   - 12.3 Machines
   - 12.4 Power
   - 12.5 Magnetism
   - 12.6 Heat

Grade 8 Outline

1. Science and Its Relationship to Human Endeavors

   - 1.1 Scientific methods
   - 1.2 Laboratory safety
   - 1.3 History
   - 1.4 Recent advances in science and technology
   - 1.5 Science-related careers--overview
   - 1.6 Measurement
   - 1.7 Current societal issues related to science

2. Adaptation

    2.1 Reproduction
    2.2 Heredity and DNA
    2.3 Asexual and sexual reproduction
    2.4 Behavior
    2.5 Methods of adaptation
    2.6 Changes through time

3. Ecology

    3.1 Energy systems
    3.2 Communities
    3.3 Ecosystems
    3.4 Cycles
    3.5 People and the environment

4. Land and Sea

    4.1 Erosion
    4.2 Tectonic forces
    4.3 Rock formation
    4.4 Geologic time
    4.5 Uniformitarianism
    4.6 Fossil records
    4.7 Ocean currents
    4.8 Oceanic topography

5. Space Exploration and the Universe

    5.1 Rockets
    5.2 Satellites
    5.3 Deep space probes

6. Nuclear Energy

    6.1 Isotopes
    6.2 Radioactivity
    6.3 Nuclear fission and fusion
    6.4 Applications of radioactive isotopes
    6.5 Radiation safety

7. Chemical Phenomena

    7.1 Periodic table of elements
    7.2 Chemical shorthand
    7.3 Organic chemistry

8. Physical Phenomena

    8.1 Definition of energy
    8.2 Conservation of energy
    8.3 Movement of energy
    8.4 Properties of light
    8.5 Properties of sound
    8.6 Static electricity
    8.7 Measurement of electric currents
    8.8 Series and parallel circuits
    8.9 Electric power

GRADES 9-12

Major Emphases

The high school science curriculum is characterized by the opportunity to study physical science, biology, earth science, chemistry, and physics from approaches representing two types of courses: academic and applied/technical. This permits students with different interests and abilities to select their own courses of study to fit their educational and vocational objectives.

The academic courses are designed for students who desire a more in-depth understanding of science concepts. These courses are more abstract and suitable for the student interested in pursuing a science-related career above the technical level. Considerable emphasis is placed on mathematics in these courses and instruction is more specialized.

The applied/technical courses are designed to provide opportunity for students to gain a general understanding of the fundamental principles of science while stressing the application of science to everyday problems and the world of work. Mathematical requirements are limited to basic mathematics in these courses. A major objective is to introduce students to the world of science and to instill in them an appreciation for the value of science as it relates to the well-being of each individual.

Both course types contain the basic science content areas (physical science, biology, earth science, chemistry, and physics) usually offered in grades 9-12. A variety of enrichment courses of an exploratory nature and/or related to the world of work may be included in the applied/technical group. Additional academic courses represent a variety of other electives including advanced (2nd year) and advanced placement courses. Only one outline per subject for both types of courses (academic, applied/technical) is provided in this publication. The main differences in the two types of courses are content depth, emphasis on mathematics, and the emphasis given to application in regard to the world of work.

Physical Science Outline

1. Introduction to Physical Science
    - 1.1 The nature and limitations of science
    - 1.2 Scientific methods
    - 1.3 Scientific measurement
    - 1.4 Technology of science
    - 1.5 Laboratory safety and equipment
    - 1.6 Recent advances in the physical sciences
    - 1.7 Current societal issues related to physical science
    - 1.8 Physical science-related careers

2. The Atom
    - 2.1 Properties of matter
    - 2.2 Atomic structure
    - 2.3 Radioactive isotopes

3. Inorganic Chemistry
    - 3.1 Periodic chart of elements
    - 3.2 Chemical properties
    - 3.3 Compounds and mixtures
    - 3.4 Chemical reactions
    - 3.5. Solutions
    - 3.6 Oxidation and reduction

4. Organic Chemistry
    - 4.1 Basic compounds of carbon
    - 4.2 Sources and uses of hydrocarbons

5. Mechanics
    - 5.1 Vector and scalar quantities
    - 5.2 Work, energy, and power
    - 5.3 Machines
    - 5.4 Motion
    - 5.5 Forces
    - 5.6 Mechanics of fluids

6. Electricity and Magnetism
    - 6.1 Electricity
    - 6.2 Magnetism
    - 6.3 Electromagnetic application
    - 6.4 Measuring electricity

  - 6.5 Types of circuits
  - 6.6 Controlling electric current
  - 6.7 Electrical chemistry
  - 6.8 Conversion of electrical energy
  - 6.9 Solid-state electronics

7. Energy

   - 7.1 Wave phenomenon, sound, light
   - 7.2 Heat
   - 7.3 Nuclear
   - 7.4 Chemical
   - 7.5 Mechanical

Biology Outline

1. The scientific background

   - 1.1 Nature of science
   - 1.2 Methods of science
   - 1.3 Limitations of science
   - 1.4 Technology of science

2. The Nature of Life

   - 2.1 The science of life
   - 2.2 The differences between living and nonliving things (characteristics of life)
   - 2.3 The cell (structural basis of life)
   - 2.4 The chemistry of life
   - 2.5 Dynamic equilibrium (homeostasis)

3. The Continuity of Life

   - 3.1 Heredity
   - 3.2 Genetics
   - 3.3 Organic variation
   - 3.4 Diversity among living things

4. Organisms (Anatomy, Physiology, Taxonomy)

   - 4.1 Anatomy and physiology, taxonomy
   - 4.2 Major representatives of kingdoms of living things

5. Behavior of Living Things

   - 5.1 Behavior and survival
   - 5.2 Plant tropism
   - 5.3 Innate behavior

5.4 Learned behavior
5.5 Biological rhythms
5.6 Environmental effects

6. Biology of Humans

6.1 Human origin and development
6.2 Human anatomy
6.3 Human physiology
6.4 Human reproduction
6.5 Health-related biology

7. Ecology

7.1 Populations
7.2 Communities
7.3 Ecosystems
7.4 Humans and the environment

8. Dynamics of Biology to People

8.1 Biological advances
8.2 Current societal issues in biology
8.3 Biology-related careers

Earth Science Outline

1. Introduction to Earth Science

1.1 Earth science as a varied group of sciences
1.2 The earth as a body in space
1.3 Location and mapping
1.4 Careers in earth science
1.5 Recent advances and societal issues

2. Minerals

2.1 Formation
2.2 Composition

3. Tectonics

3.1 Composition of the earth
3.2 Plate tectonics and diastrophism
3.3 Volcanism

4. Geophysical Processes

   4.1 Igneous
   4.2 Sedimentary
   4.3 Metamorphic
   4.4 Land formation
   4.5 Weathering
   4.6 Soil formation

5. Historical Geology

   5.1 Uniformitarianism
   5.2 Geologic time scale

6. Meteorology

   6.1 Structure of the atmosphere
   6.2 Energy--radiation
   6.3 Heat transfer processes
   6.4 Circulation
   6.5 Clouds and precipitation
   6.6 Cyclones and anticyclones
   6.7 Severe weather conditions
   6.8 Forecasting

7. Climatology

   7.1 Nature and physical factors of climate
   7.2 Climate types
   7.3 Pollution (air) climatic effects

8. Oceanography

   8.1 Scientific study of the ocean
   8.2 Extent of earth's surface water
   8.3 Circulation of ocean water
   8.4 Water (hydrologic) cycle
   8.5 Submarine topography
   8.6 Resources from sea water
   8.7 Vertical structure
   8.8 Composition and characteristics of sea water
   8.9 Waves
   8.10 Shoreline modification/erosion
   8.11 Tides

9. Astronomy

   - 9.1 Tools of astronomy
   - 9.2 Theories of origin
   - 9.3 The solar system
   - 9.4 The earth/moon system
   - 9.5 Beyond the solar system

10. Space Exploration

   - 10.1 History
   - 10.2 Rockets
   - 10.3 Escape and orbital problems and principles
   - 10.4 Satellites and space probes
   - 10.5 Present and future

11. Resources and Environment

   - 11.1 Earth's resources
   - 11.2 Environment

Chemistry Outline

1. Introduction to the Science of Chemistry

   - 1.1 Methods and processes of science
   - 1.2 Properties of matter and energy
   - 1.3 Conservation of matter and energy

2. Matter--Classifications and Changes

   - 2.1 Classifications of matter
   - 2.2 Atoms and molecules
   - 2.3 Elements, compounds, and mixtures
   - 2.4 Nuclear changes
   - 2.5 Physical changes
   - 2.6 Chemical changes

3. Descriptive Chemistry and Periodic Properties of Elements

   - 3.1 Atomic models and electron configurations
   - 3.2 Periodic properties and the periodic table of elements

4. Measurement and Computation

   - 4.1 Use of number-producing instrumentation
   - 4.2 Scientific notation
   - 4.3 Units and conversions

5. Stoichiometry and Kinetic Molecular Theory

    5.1 Formulas and equations
    5.2 Mole concept
    5.3 Stoichiometry
    5.4 Behavior of gases

6. Chemical Reactions, Kinetics, and Thermodynamics

    6.1 Oxidation-reduction
    6.2 Electrochemistry
    6.3 Energy effects
    6.4 Reaction rates
    6.5 Equilibrium

7. Electrolyte Solutions--Acids, Bases, and Salts

    7.1 Importance
    7.2 Naming
    7.3 Characteristics and the solution process
    7.4 Systems of concentration
    7.5 Ionization
    7.6 Acid-base equilibria and pH
    7.7 Solubility

8. Organic Chemistry

    8.1 Carbon
    8.2 Hybridization and bonding
    8.3 Hydrocarbons
    8.4 Hydrocarbon substitution products
    8.5 Living things

9. Relevance and Current Topics in Chemistry

    9.1 Current topics
    9.2 Career opportunities

Physics Outline

1. Introduction to the Science of Physics

    1.1 Problem-solving methods
    1.2 Measuring devices and scalar numbers
    1.3 Elements of graph construction
    1.4 Relevance and current topics in physics

2. Mechanics

    2.1 Laws of motion
    2.2 Vector quantities and component forces
    2.3 Gravitational forces
    2.4 Work, power, and mechanical energy

3. Kinetic Theory and Properties of Matter

    3.1 Phases of matter
    3.2 Use of physical constants

4. Thermodynamics

    4.1 Characteristics of heat energy
    4.2 Conservation of heat
    4.3 Heat equivalent of work

5. Wave Mechanics

    5.1 General properties of wave phenomena
    5.2 Sound
    5.3 Light

6. Electricity and Magnetism

    6.1 Electrostatic phenomena
    6.2 Direct current circuits
    6.3 Magnetism
    6.4 Alternating current

7. Particle Physics

    7.1 Development of atomic theory
    7.2 Quantum theory
    7.3 Atomic particles
    7.4 Nuclear energy and society

SECOND LANGUAGE STUDIES

MODERN LANGUAGES

PURPOSE AND OVERVIEW

The purpose of a program in second language studies in North Carolina is to introduce students into the life, literature, and culture of other lands, to prepare some for research in foreign language sources at higher levels of education, to prepare others to aid in the State's economic and cultural growth--particularly in dealing with the international business, educational, and scientific communities--and to make available to all children an opportunity to sense and feel the spirit of expressions foreign to our own. In order to succeed in these arenas, North Carolinians must be able to: (1) use language and behavior that conform to the proprieties and sensibilities of other cultures; (2) recognize commonalities and accept differences among cultures, peoples, and languages; and (3) appreciate the contributions of other cultures to our nation, state and communities. To accomplish these ends, the citizens of this State must be proficient in at least one second language.

The overall goal of second language study is proficiency. Proficiency is the ability to communicate directly and effectively with people from other cultures. Contact with other cultures is a reality in North Carolina: activity in foreign investment and international trade is increasing annually, and the number of immigrants, settling in more and more communities in this State, is growing steadily. Therefore, the program prepares students to communicate directly and productively with people who have been brought together by international trade, technological advances, and common needs.

The immediate objective of this proficiency-based program of second language study is the progressive development of the skills of listening, speaking, reading, and writing. Correspondingly, the language learning process involves mastery of grammar and vocabulary. Finally, the study of culture is incorporated throughout the language learning process. This entails learning about the ways in which people live on a day-to-day basis as well as about their contributions to our nation, state, and communities.

The developmental nature of language learning requires daily language use in a long, unbroken sequence that permits pupils to develop proficiency in as natural a manner as they did their first language. The natural sequence in the language learning process involves the development of the listening and speaking skills first, with reading and writing integrated later. Formal grammar study is incorporated later in the process; immediate application of grammar is essential to continued development toward proficiency. Culture is integral to the entire K-12 continuum. Language learning and use must conform to the concepts that students have mastered and to their experiences, both in and out of school.

COURSE OF STUDY

K-3
Beginning Second Language Studies

4-6
Intermediate Second Language Studies

7-8
Intermediate/Advanced Second Language Studies: Transitional

9-12
Second Language I
Second Language II
Second Language III
Second Language IV

Most modern language programs in North Carolina begin at the secondary level but could start in kindergarten. Therefore, the course of study for beginning second language studies is included at grades K-3; intermediate study at grades 4-6; intermediate/advanced at grades 7-8; and advanced study at grades 9-12. Since the degree of proficiency attained by students is directly related to the number of years of study, this curriculum represents a maximum of thirteen years of continuous development in the same language. While it is recommended that the same language be studied for thirteen years, students may add an additional language at some point along the K-12 sequence in order to begin to develop competence in two languages at the same time. However, the major emphasis of this curriculum is the continuous study of one language for thirteen years.

Although students may begin the study of a second language at varying grades, the developmental nature of language acquisition requires that they be placed at an appropriate level on the continuum of competencies:

- if a student has had no prior experience with language, the competencies reflected at the initial step of the sequence should be developed
- if a student demonstrates competency beyond the beginning level, or higher levels, placement in the program should reflect this capability

Therefore, because students may enter the second language studies program at varying grades and with varying degrees of competence, placement considerations require that this competency-based curriculum be presented as follows: K-3, K-6, K-8, K-12.

This K-12 program of second language studies is consistent with the Foreign Language Curriculum Study Committee's October 1983 recommendation to the State Board of Education that every local school unit provide to every student the opportunity to study a second language for thirteen years.

The languages to be studied in this program are selected according to the academic, aesthetic, and practical needs of the children and of the communities in which they live. The second languages are chosen from the commonly-taught languages (Spanish, French, German) and from the less commonly-taught languages (Russian, Arabic, Chinese, Japanese). Because many school districts offer courses in Latin, it has been included in the second language competency-based curriculum for grades 7 through 12. However, since Latin is offered only in grades 7 through 12, it is not considered a part of the State-funded Basic Education Program.

LEARNING OUTCOMES

The K-12 program in second language studies can be divided into five major areas: listening, speaking, reading, writing, and culture. All of these areas are interdependent and interrelated. Grammar is applied continuously but not introduced formally until the student has reached the advanced level at grades 9-12. Some informal presentations of grammar are made at grades 7-8.

At each level of learning, a student should exhibit increased proficiency in each of the following five areas:

Listening--Progressive development of the ability to understand language when spoken by an educated native speaker.

Speaking--Progressive development of the ability to speak the language so as to be understood by a native of the target culture, using correct pronunciation, stress, rhythm, and intonation.

Reading--Progressive development of the ability to understand the written language in context from print and nonprint materials in the target language.

Writing--Progressive development of the ability to write so as to be understood by an educated native of the target culture, using correct spelling, punctuation, vocabulary, and grammar.

Culture--Progressive development of knowledge about other people and the ability to use language and behavior appropriate to real-life situations in the target culture.

GRADES K-3

Major Emphases

At the beginning level of second language study, emphasis is placed on three of the five major areas: listening, speaking, and culture. Students learn to recognize and understand concrete words and simple questions, to follow directions and commands, and to recognize voice intonations associated with these and other types of statements. The vocabulary that is learned corresponds to the concepts that students have mastered and experiences they have had. They learn to understand and use action words, descriptive words, and emotional words and expressions. Although grammar is not taught at this level, students imitate and use language structure and forms correctly and naturally.

Throughout the beginning level, culture is incorporated in the skills development activities. Students learn to recognize the target country on a map, and to use simple expressions and behavior that are related to daily situations in the target culture. They become familiar with the schedules, activities, and favorite songs and stories of children in the target country.

Grades K-3 Outline

1. Listening: Goal--to understand language in context when spoken by an educated native speaker

    1.1 Recognize and understand concrete words and simple phrases and sentences
    1.2 Respond to simple who, what, where, how, when, and how much/many questions
    1.3 Follow directions and commands
    1.4 Identify descriptive words
    1.5 Recognize and understand voice intonation (involves affirmative and negative declarations, questions, commands, and exclamations)

1.6 Identify emotional words and expressions in context (includes vocabulary, intonation, facial expression, gesture, and posture)
1.7 Recognize and understand action words separately and in a sequence
1.8 Recall facts
1.9 Distinguish between fact and fiction

2. Speaking: Goal--to speak the language so as to be understood by a native speaker of the target culture, using correct pronunciation, stress, rhythm, and intonation

   2.1 Repeat and use concrete words, simple phrases, and sentences in context
   2.2 Ask and answer simple questions of the who, what, where, when, how, and how much/many type
   2.3 Give directions and commands
   2.4 Name and describe people, places, and things
   2.5 Express likes/dislikes, emotions, and wants
   2.6 Use action words separately and in a sequence
   2.7 Express possession
   2.8 Recall facts
   2.9 Distinguish between fact and fiction

3. Culture: Goal--to gain knowledge about other people and the ability to use language and behavior appropriate to real-life situations in the target culture

   3.1 Identify the target country on a map and on a globe
   3.2 Use expressions and behavior that are appropriate to various daily situations in the target culture
   3.3 Know daily schedules and routine activities of school children in the culture being studied
   3.4 Know and participate in activities related to major holidays and special dates that are celebrated by children in the target culture
   3.5 Learn favorite songs, stories, and games of children in the target culture

GRADES 4-6

Major Emphases

Second language study at the intermediate level continues the development of the listening and speaking skills begun in the earlier grades. The pre-reading/reading and writing skills are introduced at this level. Students learn to read and write what they can say. Development of the four skills at grades 4-6 includes learning to paraphrase, summarize, predict outcomes and draw inferences. In addition, students learn to recognize context clues and extract the main idea from familiar material heard and read. They continue to expand their vocabulary, exhibiting the ability to understand and use more abstract words and expressions. Grammar is not introduced, formally or informally, at this level. However, students gradually develop the ability to use more complex structures naturally.

Culture continues to be stressed at the intermediate level. Increased emphasis is placed on the target culture's language and behavioral patterns that are appropriate at school, at home, and in other social settings. Students learn to recognize and identify geographical features and their importance in the country being studied. They also learn to identify major historical events and individual achievements in the arts, science, music, and literature of the target country.

Grades 4-6 Outline

1. Listening: Goal--to understand language in context when spoken by an educated native speaker

    1.1 Recall facts and list details from material viewed and heard
    1.2 Paraphrase/summarize material heard (e.g., short stories, descriptions, conversations, directions)
    1.3 Understand meaning from context clues
    1.4 Extract the main idea from material heard (e.g., brief conversations, oral readings, descriptions, explanations)
    1.5 Determine cause/effect relationships
    1.6 Predict outcomes
    1.7 Draw inferences
    1.8 Make judgments

2. Speaking: Goal--to speak the language so as to be understood by a native of the target culture, using correct pronunciation, stress, rhythm, and intonation

    2.1 Tell time and use calendar and time expressions
    2.2 Describe sequence of events
    2.3 Express feelings
    2.4 Classify
    2.5 Describe cause and effect relationships
    2.6 Make comparisons and contrasts
    2.7 Summarize material heard (conversations, short stories, explanations, directions)
    2.8 Draw inferences
    2.9 Make judgments
    2.10 Predict outcomes

3. Pre-Reading: Goal--to understand the written language in context from print and nonprint materials in the target language

    3.1 Identify and name environmental sounds, objects, shapes, and colors (listening and looking)
    3.2 Discriminate between words that have different sounds and recognize words that sound alike (listening and looking)

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3.3 Hear and understand concrete words, simple phrases, and sentences (listening and looking)
3.4 Recall details from what is viewed and heard (listening and looking)
3.5 Pronounce familiar words that are written

4. Reading: Goal--to understand the written language in context from print and nonprint materials in the target language

   4.1 Recognize and say familiar words, simple phrases, and sentences that are written
   4.2 Respond to simple who, what, where, how, when, and how much/many questions
   4.3 Follow written directions and commands
   4.4 Identify by description
   4.5 Recall facts from material read
   4.6 Summarize written material (e.g., short stories, descriptions, poems)

5. Writing: Goal--to write so as to be understood by an educated native of the target culture, using correct spelling, punctuation, vocabulary, and grammar

   5.1 Copy written words correctly
   5.2 Write letters and words from dictation
   5.3 Write simple phrases and sentences
   5.4 Write answers to questions of the who, what, where, when, and how much/many type
   5.5 Write descriptive sentences about known people, places, things, and activities
   5.6 Use action words in context
   5.7 Write a paragraph including topic sentence, two supporting statements, and a summary statement

6. Culture: Goal--to gain knowledge about other people and the ability to use language and behavior appropriate to real-life situations in the target culture

   6.1 Recognize language and patterns of behavior that are appropriate in real-life situations in the target culture
   6.2 Identify geographical features of the countries where the target language is spoken, and show the relationships between these features and the products of the countries
   6.3 Identify major historical events and important individuals in the target culture
   6.4 Identify outstanding people in the target country who made significant contributions to civilization in the arts, literature, music, science, and politics
   6.5 Recognize the influence of the target culture on the American culture

GRADES 7-8

Major Emphases

Second language study at the intermediate/advanced level continues to stress the development of the four skills introduced at the earlier levels. Students stretch their ability to recognize intonation patterns and extract meaning from broadcasts, reports, short stories, news articles, and conversations. They also learn how to determine the author's point of view and present their own, as well as how to distinguish between fact, fiction, and opinion. Moreover, students learn how to deliver simple oral reports and how to write summaries of general topics discussed in class, dialogues on familiar topics, and paragraphs or letters on assigned topics. Students learn to understand and express emotions and feelings.

Grammar is introduced informally at this level, enabling students to distinguish simple grammatical forms heard and read, and preparing them for the formal presentation of grammar at the advanced level. Therefore, the intermediate/advanced level may be termed the transitional level. By the end of the intermediate/advanced level, students will have developed a repertoire for understanding grammar.

Culture at this level expands the knowledge and understanding of the target country's language and behavior, geographical features, historical events, and important individuals and achievements. Students learn to recognize the influence of the target culture on their own culture.

Grades 7-8 Outline

1. Listening: Goal--to understand language in context when spoken by an educated native speaker

    1.1 Distinguish simple grammatical forms by listening
    1.2 Recognize intonation patterns and their effect on meaning
    1.3 Listen for the main idea in telephone calls, radio/TV broadcasts, oral reports, poems, and short stories
    1.4 Understand conversations about everyday topics, personal and family news, well-known current events, and routine school matters
    1.5 Obtain specific information by listening
    1.6 Determine feelings, emotions, and preferences as expressed in conversations, simple songs, poems, and paragraphs
    1.7 Distinguish fact from fiction or opinion
    1.8 Understand point of view/purpose

2. Speaking: Goal--to speak the language so as to be understood by a native of the target culture, using correct pronunciation, stress, rhythm, and intonation

    2.1 Utilize accurate elementary grammatical constructions in oral expression
    2.2 Use reasonably accurate pronunciation and intonation
    2.3 Relate a narrative or deliver a simple oral report
    2.4 Communicate orally on everyday topics, personal and family information, well-known current events, and routine school matters
    2.5 Ask questions to seek information and give specific information orally
    2.6 Express emotions, feelings, and preferences orally
    2.7 Express orally the differences between fact, fiction, and opinion
    2.8 Express orally personal point of view

3. Reading: Goal--to understand the written language in context from print and nonprint materials in the target language

    3.1 Recognize elementary grammatical structures in selected written materials
    3.2 Read aloud a familiar passage with appropriate intonation and correct pronunciation
    3.3 Understand the main idea in selected reading passages
    3.4 Read for comprehension simple newspaper or magazine articles and simple (or edited) literary selections
    3.5 Obtain information through reading
    3.6 Determine emotions, feelings, or preferences from selected reading materials
    3.7 Distinguish fact, fiction, opinion, and inference in reading materials
    3.8 Determine author's point of view

4. Writing: Goal--to write so as to be understood by an educated native of the target culture, using correct spelling, punctuation, vocabulary, and grammar

    4.1 Write controlled sentences and paragraphs with accurate elementary grammatical structures
    4.2 Transcribe dictated familiar material and elementary unfamiliar material
    4.3 Write summaries of general topics discussed in class, reading selections, or TV programs
    4.4 Write dialogues on familiar topics
    4.5 Write paragraphs or letters on assigned topics to convey information
    4.6 Express emotions, feelings, or preferences in writing
    4.7 Write short poems and narratives
    4.8 Express personal point of view in written form

5. Culture: Goal--to gain knowledge about other people and the ability to use language and behavior appropriate to real-life situations in the target culture

   5.1 Recognize language, customs, and patterns of behavior which are appropriate to the target culture
   5.2 Identify geographical features of the countries of the target language and their relationship to the culture
   5.3 Identify the major historical events and important individuals in the target culture
   5.4 Identify outstanding achievements of the people of the target country and their contributions to civilization in the arts, literature, music, science, and politics
   5.5 Recognize the influence of the target culture on her/his own culture

GRADES 9-12

Major Emphases

The program of second language study at the advanced level emphasizes greater and more sophisticated use of the four skills of listening, speaking, reading, and writing. Students develop an understanding of the essentials of conversations, broadcasts, poems, short stories, and lectures on nontechnical subjects. They learn to distinguish fact from fiction, opinion, bias, and propaganda, as well as to draw inferences and make judgments. In addition, students learn to take notes, write summaries, and prepare and present oral and written reports. Increased emphasis is placed on extracting meaning from unfamiliar material heard and read.

Formal presentation of grammar begins at the advanced level. Students learn to recognize both simple and complex grammatical forms and structures. Immediate application of grammar is stressed at this level to ensure continued progress in language proficiency. Students at this level expand their knowledge of vocabulary because they are involved in a greater variety of activities which require the use of language for a greater variety of purposes.

Culture continues to be stressed throughout the advanced level. Emphasis is placed on the ability to demonstrate and use language and patterns of behavior that are appropriate to real-life situations in the target culture. Also, students learn to describe the culture's literary, social and artistic movements, and to compare its patterns and values with their own culture's.

Grades 9-12 Outline

1. Listening: Goal--to understand language in context when spoken by an educated native speaker

    1.1 Distinguish simple and complex grammatical forms and structures
    1.2 Distinguish intonation patterns and audience
    1.3 Understand accurately the essentials of telephone calls, radio/TV broadcasts, oral reports, poems, short stories, and lectures on nontechnical subjects
    1.4 Understand conversations and discussions on most general topics and areas of special interest
    1.5 Obtain information by listening
    1.6 Distinguish feelings, emotions, and preferences as expressed in literary selections, music, and films
    1.7 Distinguish fact from fiction, opinion, inference, bias, and propaganda
    1.8 Analyze, draw inferences, and make judgments about what is heard

2. Speaking: Goal--to speak the language so as to be understood by a native of the target culture, using correct pronunciation, stress, rhythm, and intonation

    2.1 Utilize accurately some complex grammatical constructions for oral expression
    2.2 Use reasonably accurate pronunciation, stress, rhythm, and intonation which would be acceptable to a native speaker
    2.3 Deliver oral reports, original poems or short stories, radio/TV broadcasts
    2.4 Participate in formal and informal conversations on practical, social, and school-related topics, as well as on areas of special interest
    2.5 Ask questions to clarify meaning and seek information; give specific information orally
    2.6 Express emotions, feelings, and preferences orally
    2.7 Distinguish fact, fiction, opinion, and bias, and make assumptions, judgments, and inferences orally
    2.8 Persuade orally

3. Reading: Goal--to understand the written language in context from print and nonprint materials in the target language

    3.1 Recognize some complex grammatical structures from written material
    3.2 Read aloud a selected passage with correct pronunciation, intonation, stress, and rhythm
    3.3 Read unfamiliar selections on general topics for general understanding
    3.4 Read for comprehension authentic newspaper and magazine articles, literary works, and other unedited materials
    3.5 Obtain information by reading

3.6 Determine emotions, feelings, and preferences as expressed in unedited reading selections
3.7 Make judgments and draw inferences from unedited written materials
3.8 Analyze and evaluate an author's viewpoint and style

4. Writing: Goal--to write so as to be understood by an educated native of the target culture, using correct spelling, punctuation, vocabulary, and grammar

4.1 Write controlled paragraphs and compositions, utilizing accurate simple and complex grammatical constructions
4.2 Transcribe dictated familiar material and intermediate unfamiliar material
4.3 Take notes from lectures, films, tapes, and write summaries
4.4 Write dialogues, skits, letters on most general topics and areas of special interest
4.5 Write reports on assigned topics to convey information
4.6 Express emotions, feelings, or preferences in writing
4.7 Write original fiction and poetry
4.8 Present arguments and persuade effectively

5. Culture: Goal--to gain knowledge about other people and the ability to use language and behavior appropriate to real-life situations in the target culture

5.1 Demonstrate and be able to utilize language, customs, and patterns of behavior which are appropriate to the target culture
5.2 Identify geographical features of the countries of the target language and their relationship to the target culture
5.3 Identify the most outstanding achievements and contributions of the people of the target culture to world civilization
5.4 Describe major literary, social, and artistic movements in the target culture; place them in an historical context
5.5 Compare and contrast cultural patterns and values of the target culture with those of the North American culture

SOCIAL STUDIES

PURPOSE AND OVERVIEW

An effective and balanced K-12 social studies program will prepare students to be active, effective, and responsible citizens of the State of North Carolina. Social studies provides the student with the background to work individually and in groups, and to deal with a broad range of peoples and cultures. It increases the student's awareness of her/his world, nation, and state, and gives her/him a background of the history, politics, and culture of North Carolina, the United States, and the world at large. Social Studies programs provide students with the knowledge, skills, attitudes, and values that enable them to be effective problem-solvers and good decision-makers. They are prepared to deal with present, recurring, and unforeseen problems.

Within our schools, social studies has traditionally embodied the important role of preparing young people to inherit the right and the responsibility of citizenship. It is the single curriculum area whose subject matter is the entirety of human experience. The teachings of the disciplines which make up the social studies contribute distinctively to citizen education:

The study of history places human beings and their activities in time. A knowledge of history cannot enable one to predict the future, but it can reveal how other people in other times have dealt with similar problems. It is unique in showing how the past shapes the world of today and suggests the options open to us. History can teach both the burdens the past has placed on us as well as the opportunity that these burdens provide. The study of history has enormous value for society collectively. Historical knowledge gives society its roots: in time, in place, and in direction.

The study of geography encompasses the questions, "Where is it?" and "Why is it there?" Geography is the stage on which the drama of history unfolds. Geographic understanding helps citizens answer questions about the ways human societies have occupied, used, and been affected by the lands they live on. Just as knowledge of history can give an understanding of time perspective, knowledge of geography can give an understanding of spatial perspective.

Knowledge of economics brings with it an understanding of how individuals and societies decide to use their skills and their resources to provide for their needs. A basic knowledge of economics can provide citizens with tools to evaluate issues having to do with the allocation and distribution of the earth's diminishing resources.

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Knowledge of political science includes understanding basic political concepts and government institutions. Why governments exist, how they function, and how each relates to all others are fundamental to understanding the world and human activity. In order for students to participate effectively and creatively in their political/legal system, they must first have a fundamental understanding of political systems and processes.

Governments and economies are operated by people. Anthropology, psychology, and sociology offer distinctive perspectives on the behavior of individuals and groups. These social sciences can provide citizens with useful tools for analyzing the motives and actions of individuals and groups they encounter.

A sequential skills program develops tools needed by students for further learning as well as those needed for playing active roles as citizens. Without the skills component the social studies program will provide students with a knowledge of facts, but without the understanding or means to use them. It cannot be assumed that students have mastered a given skill merely because it is taught in a particular unit of study or at a given grade level. Skill implies the proficiency to do something well. The attainment of proficiency in performing a given task is no automatic process. Mastery of skills comes only as the result of practice, continued use, and refinement.

If students are to attain the skills necessary for social inquiry and rational decision-making, these skills must be clearly identified and sequentially developed throughout the entire instructional program. Additionally, the instructional plan must provide opportunities for students to systematically practice, apply, and refine those skills.

Practice, as it relates to skill development in social studies, implies more than drill or the repetition of a particular response. Skills and attitudes are developed as students work with information and acquire knowledge. Consequently, social studies skills are effectively learned only as they are practiced within the context of situations in which such skills must be applied: for acquiring needed information, resolving a recognized problem, deciding upon a feasible course of action, or for attaining a stated goal. If students are to gain facility in the use of various social studies skills, instructional activities designed specifically for this purpose must be sequentially structured both within each grade and from grade to grade, K-12. The instructional sequence for each skill to be taught should include: (1) the presentation of a model of the use of the skill; (2) several opportunities for students to work through the process under careful teacher guidance; and (3) continued opportunities for additional practice involving use of increasingly complex variations of the skill within a variety of functional settings.

There are basically three types of social studies skills: academic (intellectual) skills, self-management skills, and the skills of social participation. The academic skills of major concern in the area of social studies are those intellectual functions associated with the scientific approach to social inquiry. These include the ability to identify, define, and state problems; formulate hypotheses; plan appropriate methods for testing stated hypotheses; locate, organize, and interpret information; assess the appropriateness and limitations of data and sources of data; evaluate the accuracy of hypotheses based on data; report findings; and draw valid conclusions. Self-management skills include those techniques and abilities that one uses in managing interpersonal and intergroup relations--growing in sensitivity to others and in the capacity to deal with conflict, uncertainty, diversity, and change. Social participation skills include the skills of effective listening, group discussion and planning, group decision-making, and accepting responsibility for such decisions.

COURSE OF STUDY

K-3 Interdisciplinary Social Studies
4-8 Cultural Geography, Government, History
9-12 Economics Government World History, Cultures, and Geography United States History

The sequence for the social studies program (indicated above) defines in general terms the subject matter to be emphasized at each grade. The organizational pattern that is recommended is both sequential and developmental.

The curriculum is designed to draw insights and organization from history and the social science disciplines. The primary grades (K-3) program is interdisciplinary, based on concepts from the social science disciplines. Grades 4-12 are a continuation of some aspects of this interdisciplinary study, though certain disciplines provide the organizational structure at various levels. Studies in grades 4-7 are based in geography. The eighth grade study is an historical study, while economics and political science provide the structure for the ninth grade study. The world studies program at grade ten may be organized historically, geographically, or as an interdisciplinary cultural study. History is the basis of the eleventh grade study, while the twelfth grade study may focus on history and the social studies electives which draw from the various social science disciplines. Thus history and the social sciences form the intellectual base for the entire curriculum sequence.

Many school districts do offer other courses appropriate to this instructional area which are not a part of the State-funded basic education program. Such electives may include: International Studies, Law and Justice, Psychology, Sociology, Local and State History and Government, Humanities, Advanced U.S. History, Advanced World History, Geography, and Advanced Government.

LEARNING OUTCOMES

The overall curriculum goals for social studies are to:

- develop concepts and make valid generalizations that provide insights into the political, economic, and social behavior of people.

- become proficient in the skills needed for information gathering, problem-solving, decision-making, planning, self-management and group participation.

- acquire knowledge about:

    - the structure and functions of the social, political, and economic institutions in American and other societies.
    - the historical development and unique characteristics of past and present societies.
    - issues and problems which have persisted throughout time
    - basic geographic concepts.

- develop values consistent with fundamental tenets of democracy.

- develop constructive attitudes toward diversity, change, conflict, and uncertainty.

- develop an understanding of one's relationship to others and to the environment.

GRADES K-3

Major Emphases

The social studies program at the primary level focuses on the expanding horizons of the child as s/he inquires into physical and social environments as a way of developing positive concepts of self and others. The program is an active one; the way in which children learn at this level is as important as, and may determine, what children learn.

The program explores the widening social world of the child and her or his relationship with others in the home, school, neighborhood, and community. This exploration has a "near-and-far" emphasis as well. Children in studying the neighborhood, for instance, examine their own neighborhood and compare and contrast it to other neighborhoods in different times and places. Such "near-and-far" study helps students to better understand their own familiar environments as they examine them in relation to unfamiliar environments and people.

As they study people, families, homes, school, neighborhoods, and communities, students become aware of the interdependence in each of these social arrangements. They learn the roles and functions of family members and school, neighborhood, and community workers as well as how individuals, homes, and communities change over time.

As a result of the program at this level students should:

- grow in self-reliance (in their ability to learn independently and take responsibility for their own actions).
- become more sensitive to and accept the feelings of others.
- learn to read, follow, and interpret simple maps, globes, charts, and graphs.
- be able to recognize problems which are real to them and be able to suggest ways of solving them.
- be able to locate and gather information pertinent to social studies at their level, to analyze this information, and to draw conclusions from it.
- begin to understand the concepts of interdependence, responsibility, and individual worth.

Kindergarten: The Individual and Group Relationships

The program for kindergarten children begins with a study of oneself and of people and things familiar to oneself. The children explore many facets of individuality, of family life, and of other groups of which they are members. After the children have acquired an understanding of themselves and of their own family structure, the study should be extended to people living in similar and different environments in the United States and in the world.

In the kindergarten program the children begin to develop concepts about their own being and the family as a basic institution in human society. They learn that there are certain basic needs common to all people--those of food, clothing, shelter, and security. In looking at their unique qualities and characteristics, and in looking at families living in societies different from their own, children perceive that while individuals and families are different, similarities also exist. They see that although people have basically the same needs, they meet these needs in a variety of ways. Concepts such as interdependence, individual worth, dignity, responsibility, environment, and scarcity are introduced and expanded through a study of family organization and the different roles assumed by the children and various members of the family unit.

Insights from the disciplines of anthropology, economics, geography, government, history, and sociology are used to structure the interdisciplinary kindergarten program in social studies.

Grade K Outline (Knowledge)

THE LEARNER WILL:

1. Develop a positive self-concept (sociology and anthropology).

2. Become independent (sociology and anthropology).

3. Cooperate with others (sociology and anthropology).

4. Become an effective problem-solver in classroom situations.

5. Understand the concept of citizenship within the classroom and school (political science and sociology).

6. Understand the concept of authority in a democratic environment (political science, sociology, and anthropology).

7. Understand responsibility (political science, sociology, and anthropology).

8. Understand the role of rules and laws in the home and school (political science, sociology, and anthropology).

9. Understand the concept of family (sociology and anthropology).

10. Understand the concept of change (history).

11. Know commonly celebrated holidays, famous people, and special days (history and political science).

12. Understand the importance of the environment (geography, sociology, and anthropology).

13. Understand the ways families use money (economics).

14. Understand the concept of the division of labor (economics).

15. Understand the concept of wants and needs (economics).

16. Understand the concept of scarcity (economics).

Grade K Outline (Skills)

THE LEARNER WILL:

1. Identify and define problems and suggest ways of solving them.

2. Locate and gather information.

3. Evaluate information.

4. Organize and analyze information and draw conclusions.

5. Use maps and globes.

6. Have a sense of time and chronology.

7. Demonstrate growth in self-management.

8. Participate in group activities.

Grade One: Home and School

The first grade study builds upon concepts introduced in kindergarten. The students further examine the roles of members of their own families as well as those of families in other environments around the world. They study their school, its purpose, and its relation to the home. They compare their home and school life with that of children in environments and societies different from their own.

The concepts of interdependence, individual worth, dignity and responsibility, environment, and scarcity are reinforced and expanded in first grade study. Through an extended study of the family and home life of people in other parts of the world, the child develops a concept of man and the universality of basic human needs and wants. By comparing and contrasting the ways in which people living in different environments seek to provide for these basic needs and wants, the student develops an awareness of the relationship between physical environment and human activity. S/he sees that family and school rules and laws are established for the common good and are a necessary part of group living.

Insights drawn from the disciplines of anthropology, economics, geography, sociology, government, and history will be used to structure the study at this level.

Grade 1 Outline (Knowledge)

THE LEARNER WILL:

1. Develop a positive self-concept (sociology and anthropology).

2. Become more independent (sociology and anthropology).

3. Cooperate with others (sociology and anthropology).

4. Become an effective problem-solver in social situations.

5. Understand the concept of citizenship within the classroom and school (political science and sociology).

6. Understand the concept of authority in home and school (political science, sociology, and anthropology).

7. Understand the concept of responsibility (political science, sociology, and anthropology).

8. Understand the role of rules and laws in a democratic environment in home and school (political science, sociology, and anthropology).

9. Understand the concept of family (sociology and anthropology).

10. Understand personal and social change (history).

11. Have a sense of time and chronology (history).

12. Know famous people from history and commonly accepted symbols of the American heritage (history).

13. Know of common holidays and holiday customs (history).

14. Understand the importance of environment (geography, sociology, and anthropology).

15. Understand the use of maps and globes (geography).

16. Understand how families derive income (economics).

17. Understand the ways families use money (economics).

18. Know that all families produce and consume goods and services (economics).

19. Understand division of labor (economics).

Grade 1 Outline (Skills)

THE LEARNER WILL:

1. Identify and define problems and suggest ways of solving them.

2. Locate and gather information.

3. Evaluate information.

4. Organize and analyze information and draw conclusions.

5. Use maps and globes.

6. Have a sense of time and chronology.

7. Demonstrate growth in self-management.

8. Participate in group activities.

Grade Two: Neighborhood and Local Community

The grade two social studies program continues to use and reinforce concepts and skills learned in kindergarten and grade one. The content of the program centers upon the organization and services of the student's neighborhood and immediate community. At this level students are formally introduced to the who, what, why, and how of their community. What resources does their community use? Where are these obtained? Who are the people who live in the student's neighborhood and community, and how did they come to be there? How do these people depend on one another? What services does the community offer them and their families? Why? By what means are these services provided to them? What are their responsibilities to the neighborhood and the community? Why should they assume these responsibilities? They are also introduced to differing neighborhoods and communities within their own county and state. Why are some communities agricultural and others industrial? Why are some communities trade and transportation centers while others are centers of government and education?

What geographical and climatic factors have caused a particular pattern of development? How have natural and human resources and other factors affected the development of other neighborhoods and communities in the region and the State? Why, as the unit of society expands (from home and school to neighborhood and community), are there generally more services, laws, and rules provided?

Insights from the disciplines of economics, geography, government, history, and sociology are used to structure the social studies program for the second grade.

Grade 2 Outline (Knowledge)

THE LEARNER WILL:

1. Develop a positive self-concept (sociology and anthropology).

2. Become independent (sociology and anthropology).

3. Cooperate with others (sociology and anthropology).

4. Become an effective problem-solver in social situations.

5. Know how individuals, families, and communities are alike and different (geography, economics, sociology, and anthropology).

6. Know that individuals occupy multiple roles in families, neighborhoods and communities (sociology and anthropology).

7. Understand the concept of citizenship within the community and school (political science, sociology, and anthropology).

8. Understand the concept of authority (political science, sociology, and anthropology).

9. Understand the need for responsibility and the consequences of irresponsibility (political science, sociology, and anthropology).

10. Understand the role of rules and laws in a democratic society (political science, sociology, and anthropology).

11. Understand how the local community is governed (political science).

12. Know that people and their governments depend on each other (political science).

13. Understand the justice system (political science, anthropology, and sociology).

14. Have a sense of time and chronology (history).

15. Develop an understanding of change in the neighborhood and community (history).

16. Know commonly accepted symbols and observances of the American heritage (history).

17. Know famous people in the past and present (history).

18. Understand the importance of the environment (geography, sociology, and anthropology).

19. Know how to use maps and globes (geography).

20. Know that economic resources exist in every community (economics).

21. Know that different communities use their economic resources in different ways (economics).

22. Understand the relationship between unlimited wants and limited resources (economics).

23. Understand the concept of division of labor (economics).

24. Know that money is a means of economic exchange (economics).

Grade 2 Outline (Skills)

THE LEARNER WILL:

1. Identify and define problems and suggest ways of solving them.

2. Locate and gather information.

3. Evaluate information.

4. Organize and analyze information and draw conclusions.

5. Use maps and globes.

6. Have a sense of time and chronology.

7. Demonstrate growth in self-management.

8. Participate in group activities.

Grade Three: Communities

The third grade study is designed to increase the children's understanding of community life. They compare and contrast their own community with communities of other lands. They are made aware of some of the relationships between way of life, environment, and tradition. They are introduced to problems that may confront their community, the groups interested and involved in these problems, and the means by which the community tries to solve the problems. They study the basic relationships between communities--how communities combine to form a larger political unit (counties), and how communities may be linked together by cultural heritage, geographic, or economic ties.

Studies concerned with communities in similar and different environments reinforce and extend concepts and skills introduced in earlier grades. Through their study of various patterns of community living today and long ago, the children begin to understand that: people's activities are influenced not only by their geographic location, but also by the historical period in which they live; how people use earth materials is largely dependent upon the knowledge and skills available to them; and, as a result of invention and technology, how people have become less dependent upon the natural environment for survival.

The program at this level is also concerned with how and why communities change. Awareness of community change helps the children perceive that while all societies change, they do not necessarily change at the same rate, nor do all aspects of the society change at the same time. Each society has certain institutions and traditions that bind the society together and give it continuity. By looking at the community as it is today, and as it was in earlier times, and the relationship existing between their community and other communities, the children are made aware of some of the cultural, political, geographic, and economic factors that help bind communities together through time and in space.

Grade 3 Outline (Knowledge)

THE LEARNER WILL:

1. Develop a positive self-concept (sociology and anthropology).
2. Become more independent (sociology and anthropology).
3. Cooperate with others (sociology and anthropology).
4. Become an effective problem-solver.
5. Understand the concept of authority in a democratic society (political science, sociology, and anthropology).
6. Understand the need for responsibility and the consequences of irresponsibility (political science, sociology, and anthropology).

7. Know the need for rules and laws in a democratic society (political science, sociology, and anthropology).

8. Know that all communities need rules and laws (political science, sociology, and anthropology).

9. Understand the justice system (political science, sociology, and anthropology).

10. Understand how local communities are governed (political science).

11. Know that people and their governments depend on each other (political science).

12. Know how individuals, families and communities are alike and different (sociology, anthropology, geography, and political science).

13. Know that all people live in multiple environments (political science, economics, geography, sociology, and anthropology).

14. Have a sense of time and chronology (history).

15. Develop an understanding of change (history).

16. Know commonly accepted symbols and observances of our American heritage (history).

17. Know about some famous people in history (history).

18. Know the effects of climate on how people live (geography, sociology, and anthropology).

19. Know that people and their environments are interdependent (geography, history, economics, and political science).

20. Know and use basic geographic terminology (geography).

21. Know that economic resources exist in every community (economics and geography).

22. Know that different communities use their economic resources in different ways (economics and geography).

23. Understand the relationship between unlimited wants and limited resources (economics).

24. Understand the concept of division of labor (economics).

25. Know that money is a means of economic exchange (economics).

26. Know that taxes are collected from all citizens to finance community services (economics and political science).

27. Gain a deeper understanding of the concept of citizenship within school and the community (political science, sociology, and anthropology).

Grade 3 Outline (Skills)

THE LEARNER WILL:

1. Identify and define problems and suggest ways of solving them.
2. Locate and gather information.
3. Evaluate information.
4. Organize and analyze information and draw conclusions.
5. Use maps and globes.
6. Have a sense of time and chronology.
7. Demonstrate growth in self-management.
8. Participate in group activities.

GRADES 4-6

Major Emphases

Instruction at this level emphasizes geography, people, and economics, but also relates them to history and government. The students become familiar with the physical make-up of their State, nation, hemisphere, and world. Through a study of representative states, nations or groups of nations, the course focuses on the people of all regions--who they are, how they live, what contributions each makes to the global society.

Grades 4-6 continue the basic "near-to-far" and "near-and-far" content sequence begun in K-3. At this level studies begin with North Carolina and continue with studies of the United States, Canada, Latin America, Europe, and the Soviet Union. In this 4-6 cycle world studies are organized primarily around concepts drawn from the disciplines of geography, economics, and government.

Geographic concepts such as region, land forms, climate, and resources; skills in using a variety of maps, globes, charts, and tables; and development of map reading skills are emphasized. Skills programs at this level extend skills introduced in K-3 and develop new skills--particularly in finding, assembling, and using a variety of sources of information; evaluating such information; and using it to suggest solutions to problems.

In comparing states, nations, and people of different continents, the students learn that there are more similarities than differences among people. They see the contributions made by each world region. Concepts dealing with interdependence, unity, resource use, change and culture, populations, communications, and methods of societal control are additional ideas included at this level.

Concepts of roles, institutions, and cultural conditioners and transmission are central to much of the study in grades 4-6. Students who leave the 4-6 program should understand that people all over the world live and behave as they do for reasons that are rational within their own cultural context.

As a result of the program at this level, students will be able to answer the following key questions about their state, nation, and world:

- Who are the people of this society?
- What is their physical environment?
- How do the people make a living?
- How is their society organized?
- How has their society changed over time?
- What are their values?

Grade Four: North Carolina: The Land and Its People

The fourth grade program is concerned with a study of North Carolina--its geography, its people, and its present status.

The third grade study of communities--how communities change and grow, how they are interdependent, how they are combined to form counties--leads naturally into a study of the State. In the fourth grade, students learn about the physical make-up of their State--its regions, land forms, climate, and resources. The study also focuses on the people of the State--who are they, where they came from, and what they do for a living. From an examination of how people make a living, the students progress to a study of the variety of economic activities in the State and how these activities have changed over time. The study of government focuses on the institutions, functions, and services of government at local (municipal), county, and state levels and examines the ways these governments affect the lives of people. Thus, the fourth grade study examines North Carolina from several regional perspectives --geographic, economic, and political. Overall, the study is of the cultural region of North Carolina. By the use of these regional perspectives, the fourth grade study is extended into successive regional studies in grades 5, 6, and 7.

While the study at the fourth grade level depends heavily on insights from geography, economics, and government, history is emphasized as it helps to explain the present. Insights from sociology and anthropology relating to groups and their behavior and culture are used.

Grade 4 Outline (Knowledge)

THE LEARNER WILL:

1. Know the major physical features of North Carolina (geography).
2. Know that physical geography is a factor in determining where and how people live (geography and history).
3. Know that there are traditional symbols of citizenship (history and political science).
4. Know that laws are made by all levels of government (political science).
5. Know that local, state, and national governments often assist one another in meeting the needs of people (political science).
6. Know the process of a democratic election (political science).
7. Know that in democracies citizens must communicate their wishes to their elected government (political science).
8. Know that elected and appointed officials have authority to act for citizens (political science).
9. Know the importance of acting responsibly as citizens (political science).
10. Know that the system of justice can correct injustices, distribute benefits and burdens fairly, and provide fair procedures for dealing with problems (political science).
11. Know that governments tax citizens (economics and political science).
12. Know the location and use of economic resources in North Carolina (economics and geography).
13. Know that scarce resources are required to produce goods and services (economics).

14. Know that many economic activities in North Carolina are interdependent (economics).

15. Know that there is an unequal distribution of natural resources (economics and geography).

16. Know the importance of natural resources (economics and geography).

17. Know that North Carolina's population is and has been diverse and multi-ethnic (sociology, anthropology, and history).

18. Know that ways of living change over time and understand how these changes occur (sociology, anthropology, and history).

19. Know that change affects the lives of people (sociology, anthropology, and history).

20. Know the influence of ideas and inventions in changing ways of living (sociology, anthropology, history, and economics).

21. Know that North Carolina's past affects the lives of its citizens today (sociology, anthropology, and history).

Grade 4 Outline (Skills)

THE LEARNER WILL:

1. Identify and define problems and suggest ways of solving them.

2. Locate and gather needed information.

3. Evaluate information.

4. Organize and analyze information and draw conclusions.

5. Use maps and globes.

6. Have a sense of time and chronology.

7. Demonstrate growth in self-management.

8. Participate in group activities.

Grade Five: The Western Hemisphere: The United States, Canada, and Latin America

Like the approach to North Carolina study at grade four, the study of the Western Hemisphere is based on cultural geography. While it is appropriate to draw upon historical data in this study, this is not intended to be a chronological history of the United States or any other country in the western hemisphere. The major aim of this fifth grade study is to describe the variety of cultures in the western hemisphere and the basis for this variety.

The year's work is organized around five basic questions which can be asked of each area studied: (1) Who are the people of this society? (2) What is the physical environment in which the people live? (3) How do the people make a living? (4) How is their society organized? and (5) What are their values?

While approximately one-half of the fifth grade program is devoted to studies of countries other than the United States, no attempt should be made to include all the countries of North, Central, and South America. The study of Canada may logically follow that of the United States. Latin American countries selected for emphasis may be chosen on the basis of their comparative and contrasting qualities--ethnic make-up, geography, use of resources, and the influence of these factors on economic and cultural development.

The social studies program at the fifth grade level finds its basis in the discipline of geography. Other disciplines receiving heavy emphasis are economics and government. History is emphasized as it helps to explain the presence of the societies studied. Insights from anthropology and sociology relating to culture and groups and their behavior are also used.

Grade 5 Outline (Knowledge)

THE LEARNER WILL:

1. Know the major physical features of the United States, Canada, and Latin America (geography).

2. Know that physical geography is a factor in determining where and how people live (geography).

3. Know there are traditional symbols of citizenship (political science).

4. Know that laws in the United States are made by local, state, and national governments (political science).

5. Know that in democracies, citizens communicate their wishes to their elected governments (political science).

6. Know the need for legitimate authority and for persons in roles of authority (political science).

7. Know the benefits and burdens of responsibility (political science).

8. Know that the system of justice can correct wrongs, distribute benefits and burdens fairly, and provide fair procedures for dealing with problems (political science).

9. Know the location and use of economic resources in the United States, Canada, and Latin America (economics).

10. Know that there is an unequal distribution of natural resources (geography and economics).

11. Know the importance of natural resources (geography and economics).

12. Know characteristics of economic systems in the United States, Canada, and Latin America (economics).

13. Know the basic attributes of the economic system of the United States (economics and political science).

14. Know the difference between developed and developing economic regions (economics and geography).

15. Know the economic problems of developing regions in the western hemisphere (economics).

16. Know that the economies of the United States and Latin America are interdependent (economics).

17. Know that while each individual is unique, similarities among people are greater than differences (sociology and anthropology).

18. Know the roles of individuals and groups in the United States, Canada, and the nations of Latin America (sociology and anthropology).

19. Know the basic social institutions and how these institutions serve the societies of Canada, the United States, and Latin America (sociology and anthropology).

20. Know that ways of living change over time and understand why and how these changes occur (history).

21. Know that change affects the lives of people (history, sociology, and anthropology).

22. Know that the histories of the United States, Canada, and Latin American nations affect the lives of people today (history and political science).

23. Know the influence of ideas and inventions in changing ways of living (sociology, anthropology, history, and economics).

Grade 5 Outline (Skills)

THE LEARNER WILL:

1. Identify and define problems and suggest ways of solving them.

2. Locate and gather needed information.

3. Evaluate information.

4. Organize and analyze information and draw conclusions.

5. Use maps and globes.

6. Have a sense of time and chronology.

7. Demonstrate growth in self-management.

8. Participate effectively in groups.

Grade Six: The Eastern Hemisphere: Europe and the U.S.S.R.

The grade six program examines two areas of the world that are of particular interest to the United States because of cultural and/or political ties. Major focus will be on the people, the physical environment, the government, and the economics of the Soviet Union and nations of Europe. History will receive attention as it helps to explain the present economic, cultural, and political life of these world areas.

It is not intended that every nation in Europe be the subject of concentrated study. Rather, in selecting nations for study, care should be taken that the geographic, cultural, and political diversity within Europe be highlighted. The study may be organized around themes such as ethnic make-up, geography, use of resources, and the influence of these factors on economic and cultural development.

Eastern Europe and the U.S.S.R. may be studied together because of political, cultural, and economic ties. If the two areas are studied separately, the ties could serve as a transitional link from one study to another. A study of Australia and New Zealand may be included at this grade level because of their close cultural, political, and economic ties to Europe.

At the sixth grade level, the disciplines of economics, geography, and government receive special emphasis. History is emphasized as it helps to explain present conditions. Insights from sociology and anthropology relating to culture and groups and their behavior are emphasized as well.

Grade 6 Outline (Knowledge)

THE LEARNER WILL:

1. Know the major physical features of Europe and the Soviet Union (geography).
2. Know that physical geography is a factor in determining where and how people live, and have lived (geography).
3. Know there are traditional symbols of citizenship and/or nationality (history and political science).
4. Know that there are different forms of government and that these forms may change over time (political science).
5. Know that different forms of government have different ways of choosing and changing leaders (political science).
6. Know that different societies have different attitudes toward the rights of citizens versus the authority of the state (political science).
7. Know the need for legitimate authority and for persons in roles of authority (political science).
8. Know the benefits and burdens of responsibility (political science).
9. Know how to evaluate issues of corrective, distributive, and procedural justice (political science).
10. Know that problems of common concern often elicit international cooperation and conflict (political science).
11. Know the location and use of economic resources in Europe and the Soviet Union (economics and geography).
12. Know that there is an unequal distribution of natural resources (geography and economics).
13. Know the importance of natural resources (geography and economics).
14. Know the major characteristics of the economic systems of Europe and the Soviet Union (economics).
15. Know that economies are interdependent in Europe and the Soviet Union (economics and political science).
16. Know that governments are supported by taxes paid by citizens (political science and economics).

17. Know the basic social institutions and how these institutions serve the societies of Europe and the Soviet Union (sociology).

18. Know the influence of ideas and inventions in changing ways of living (sociology, anthropology, history, and economics).

19. Know that ways of living change over time and understand why and how these changes occur (history).

20. Know that change affects the lives of people (history, sociology, and anthropology).

21. Know that the histories of the Soviet Union and the nations of Europe affect the lives of people today (history, political science).

Grade 6 Outline (Skills)

THE LEARNER WILL:

1. Identify and define problems and suggest ways of solving them.
2. Locate and gather needed information.
3. Evaluate information.
4. Organize and analyze information and draw conclusions.
5. Use maps and globes.
6. Have a sense of time and chronology.
7. Demonstrate growth in self-management.
8. Participate effectively in groups.

GRADES 7-8

Major Emphases

The seventh grade study of Africa and Asia completes the world studies cycle begun in grade five with the study of North America and South America and continued in grade six with the study of Europe and the Soviet Union. The seventh grade study is designed to allow the students to examine societies dissimilar to those of the West in such a way as to broaden their understanding of people and places in an increasingly interdependent world. The study is also designed to help students acquire knowledge, understanding, and skills necessary for dealing with additional cultural area studies in the high school social studies program. No attempt should be made to study every country of Africa and Asia. Countries and groups of people chosen for study should reflect the variety of cultures on the African and Asian continents.

Study at the seventh grade level will draw heavily upon the discipline of geography. Emphasis will be on cultural geography. Those questions listed at the end of the 4-6 grade level description are applicable to the seventh grade level of study as well.

North Carolina's role in the history of the American nation is the subject of a year-long study at grade eight. The course covers the entire span of the area's experience, beginning with prehistory, the founding of the Carolina colony, and reaching into contemporary times. Among the historical topics included in the course are the personalities, localities, and events which have given North Carolina a distinctive place in an emerging nation. Other topics include those events linking North Carolina to the national experience, such as the struggle for independence, the establishment and development of a national government and economy, the reform of the economic and social orders, and the Civil War and foreign wars.

As this is the first course in the social studies sequence devoted primarily to history, instruction will emphasize the method and value of historical studies. Instruction will include such concepts as the building of traditions that give continuity in society, the complex process of change, and the forces, personalities, and events which underline the transformation of society.

As a result of studies at this level students should:

- be more knowledgable about the areas studied--the people, their environment, their work, their culture, and their values.
- gain an appreciation for the history and development of North Carolina.
- gain an understanding of and respect for the cultural pluralism that characterizes the American experience.
- use geographic and chronological skills.
- practice the skills of problem solving, information gathering, evaluation, and analysis.
- participate in group learning activities, and have an increased sensitivity to the feelings of others.

Grade Seven: The Eastern Hemisphere: Africa and Asia

The seventh grade study of Africa and Asia completes the world studies cycle begun in grade five with the study of North America and South America and continued in grade six with the study of Europe and the Soviet Union. The seventh grade study is designed to allow the students to examine societies dissimilar to those of the West in such a way as to broaden their understanding of people and places in an increasingly interdependent world. The study is also designed to help students acquire knowledge, understanding and skills necessary for dealing with additional cultural area studies in the high school social studies program.

This study deals with the areas of our world having the longest record of human habitation and the richest diversity of human experience. These are regions within which the vast majority of the world's people live, and which possess some of the world's most prized economic resources.

The study at the seventh grade level will draw heavily from the discipline of geography, focusing especially on cultural geography, and asking five basic questions of each society studied: (1) Who are the people of this society? (2) What is the physical environment in which the people live? (3) How do the people make a living? (4) How is their society governed? and (5) What are their values? No attempt should be made to study every country of Africa and Asia, but approximately one-half of the year should be devoted to Africa and the other half to Asia. Countries and/or groups of people chosen for study should reflect the variety of lifestyles on the African and Asian continents.

Geography is the discipline basic to the seventh grade study. Economics, government, and history as they pertain to present conditions are emphasized. Insights from anthropology and sociology relating to culture and groups and their behavior are important to the study at the seventh grade level.

Grade 7 Outline (Knowledge)

THE LEARNER WILL:

1. Know the major physical features of Africa and Asia (geography).

2. Know that physical geography is a factor in determining where and how people live and have lived (geography).

3. Know there are traditional symbols of citizenship and/or nationality (history and political science).

4. Know that different forms of government have different ways of choosing and changing leaders (political science).

5. Know that different societies have different attitudes toward the rights of citizens versus the authority of the state (political science).

6. Know that there are different forms of government and that these forms may change over time (political science).

7. Understand the need for authority (political science).

8. Know how to evaluate issues of corrective, distributive, and procedural justice (political science).

9. Know that problems of common concern often elicit international cooperation and conflict (political science).

10. Know the location and use of economic resources in Africa and Asia (economics and geography).

11. Know that there is an unequal distribution of natural resources (geography and economics).

12. Know the importance of natural resources (geography and economics).

13. Know the major characteristics of the economic systems of Africa and Asia (economics).

14. Know that there are developed and developing economies in Africa and Asia (economics).

15. Know the economic problems of developing regions in Africa and Asia (economics).

16. Know economies are interdependent (economics).

17. Know that while each individual is unique, similarities among people are greater than differences (sociology and anthropology).

18. Know the roles of persons and groups in African and Asian societies. (sociology and anthropology).

19. Know the basic social institutions and how these institutions serve the societies in Africa and Asia (sociology).

20. Know the influence of ideas and inventions in changing ways of living (sociology, anthropology, history, economics).

21. Know that ways of living change over time, and understand why and how these changes occur (history).

22. Know that change affects the lives of people (history, sociology, and anthropology).

23. Know that the histories of regions and nations in Africa and Asia affect the lives of people today (history and political science).

Grade 7 Outline (Skills)

THE LEARNER WILL:

1. Identify and define problems and suggest ways of solving them.

2. Locate and gather needed information.

3. Evaluate information.

4. Organize and analyze information and draw conclusions.

5. Use maps and globes.

6. Have a sense of time and chronology.

7. Demonstrate growth in self-management.

8. Participate effectively in groups.

Grade Eight: North Carolina: The History of an American State

North Carolina's role in the history of the American nation is the subject of this year-long study. The course covers the entire span of the national experience, beginning with the founding of the Carolina colony and reaching into contemporary times. Among the historical topics included in the course are the personalities, localities, and events which have given North Carolina a distinctive place in an emerging nation. Other topics are those events linking North Carolina to the national experience, such as the struggle for independence, the establishment and development of a national government and economy, the reform of the economic and social orders, and the Civil War and foreign wars.

As this is the first course in the social studies sequence devoted primarily to history, instruction will emphasize the method and value of historical studies as a way of learning about the human race. These studies will include such concepts as the building of traditions that give continuity in society, the complex processes of change, and the forces, personalities, and events which underlie the transformation of society.

Grade 8 Outline (Knowledge)

THE LEARNER WILL:

1. Know that North Carolina's political, social, and economic development has been influenced by its geography.

2. Know the important developments in what became North Carolina prior to European exploration and discovery.

3. Know that cultural conflicts between Europeans and American Indians arose from first contacts and affected future European colonization and expansion.

4. Know that various European nations were involved in exploring and colonizing America.

5. Know important political, social, and economic aspects of life in colonial North America.

6. Know causes and effects, major events, and major personalities relating to North Carolina in the Revolutionary War.

7. Know major trends, events, and problems of the State in the post revolutionary era.

8. Know how the antebellum era affected North Carolina's progress.

9. Know how sectionalism affected North Carolina and resulted in secession.

10. Know how the Civil War and Reconstruction affected the development of North Carolina.

11. Know major late nineteenth-century economic, social, and political developments in North Carolina.

12. Know that the turn of the century was a time of great social, political, economic change, and unrest in North Carolina.

13. Know the political, economic, and educational advances of the early 1900s.

14. Know that North Carolina was affected by, and shared in the problems of the nation in the 1930s and 1940s.

15. Know that the years since 1945 have been a time of great social, economic, and political change.

Grade 8 Outline (Skills)

THE LEARNER WILL:

1. Identify and define problems and suggest ways of solving them.

2. Locate and gather needed information.

3. Evaluate information.

4. Organize and analyze information, and draw conclusions.

5. Use maps and globes.

6. Have a sense of time and chronology.

7. Demonstrate growth in self-management.

8. Participate effectively in groups.

GRADES 9-12

Major Emphases

The basic social studies program in grades 9-12 includes courses in government, economics, world studies, United States history, and elective courses from the social sciences and history.

This program focuses on economic, political, historical, and social knowledge and skills needed by all students for becoming responsible citizens in an interdependent world. This knowledge and skill will help form attitudes and values consistent with our democratic heritage and will be of both immediate and long-term importance.

As a result of studies in grades 9-12 students will:

- analyze and evaluate economic, social, and political problems and policies.
- gain historical perspective.
- understand the basic concepts and methodology of the particular disciplines.
- recognize what it means to be an American citizen and understand and respect the cultural pluralism that characterizes the American experience.
- become better informed and more competent in using information about national and world affairs.
- gain a basic understanding of the American system of private enterprise.

- develop a respect for law and an understanding of the rights and responsibilities for citizenship.

- continue to develop their critical thinking and research skills and to apply them in their study of history and the social sciences.

Grade Nine: The Economic, Legal, and Political Systems in Action

This course focuses on the development of economic and political knowledge and skills needed by all students so that they may become responsible citizens in an interdependent world. Its placement at the ninth grade level is important in that its objectives are particularly suited to the needs of those students who will leave school before high school graduation as well as those who will continue their studies. Economic topics for study include, but are not limited to: basic economic concepts; economic institutions; and reasoned approaches for analyzing and evaluating economic problems, actions, and policies. Political, governmental, and legal topics might include basic concepts, institutions and processes, political socialization and political behavior, decision-makers and their roles, and the analysis and evaluation of political problems and policies.

This ninth grade course may be organized in at least two ways. One organizational structure would focus on economics during one semester and on political, legal, and governmental concepts during the other. The other approach would apply important concepts and methods of economics and political science to topics or issues of local, state, national, and international importance.

Locally-focused economic and political issues are a natural beginning point of instruction, but state, national, and international problems also need to be studied. It is essential that students recognize that the knowledge and skills emphasized in this course are of both immediate and long-term importance to them as citizens.

Grade 9 Outline (Knowledge)

THE LEARNER WILL:

1. Have a continuing awareness and understanding of issues and problems confronting the economic, legal, and political systems.

2. Know the responsibilities associated with citizenship.

3. Know that scarcity causes individuals and groups to make economic choices.

4. Know that the United States has a free enterprise economic system.

5. Know the relationship between economic goals and social values.

6. Know the characteristics of command, market, and mixed economies.

7. Know the basic factors of production (land, labor, capital, and entrepreneurial skills).

8. Know that there is disagreement as to the role of government in the economy.

9. Know the function of money and financial institutions in the American economy.

10. Know why we live in a society governed by law.

11. Know the importance of the roles of the United States and North Carolina Constitutions.

12. Know the structure and function of the American government under law.

13. Know how conflicts and disputes are addressed by the legal and political systems.

14. Know the roles and functions of officials and agencies in the legal and judicial systems.

15. Know how to function in a democratic society.

Grade 9 Outline (Skills)

THE LEARNER WILL:

1. Identify and define problems and suggest ways of solving them.

2. Locate and gather needed information.

3. Evaluate information.

4. Organize and analyze information and draw conclusions.

5. Use maps and globes.

6. Have a sense of time and chronology.

7. Demonstrate growth in self-management.

8. Participate effectively in groups.

Grade Ten: World Studies

The world studies program at the high school level offers students an opportunity to extend their understandings of significant world areas introduced in grades 5, 6, and 7. The program may be organized in various ways: historically, geographically, or by cultural regions. Whatever the organizational pattern, it is important that the world studies program treat both Western and non-Western cultures.

World history studies emphasize the origins of world civilizations and the impact of non-Western civilizations on the West and upon world culture. Beginning with the rise of social organizations among isolated peoples to the complex interdependence of the 20th century this course stresses important events, persons, and trends and their roles in history and contemporary society. Economic, social, and political developments are stressed, and each epoch studied is examined through its art, architecture, literature, music, and system of beliefs.

World geography studies provide students with an understanding of some of the major characteristics of the geographic distribution of people, resources, and human activities. Content includes principles of geography and the worldwide distribution of major features in the physical environment. General characteristics of the world's regions, the identification of regional patterns and relationships, and the interaction of physical environment and human activity are systematically studied.

World culture studies emphasize the distinguishing characteristics of the world's major cultural areas and why these characteristics exist. The institutions and traits of each culture are examined in terms of their origins, operation, and usefulness to the culture itself as well as to the general culture of the world.

Grade 10 Outline (Knowledge)

THE LEARNER WILL:

1. Know major geographical concepts as a basis for understanding the environment in which s/he lives.

2. Know significant individual events and characteristics of various historical periods.

3. Know the historic development of world governments as well as compare and contrast major contemporary political systems.

4. Compare and contrast past and present economic systems.

5. Know that all cultures possess basic social institutions (e.g., family, religion, education), though the characteristics of these institutions may differ and change over time.

6. Know that all cultures have sought to express themselves through the arts.

7. Analyze the development and effects of various religious and moral beliefs in world history.

8. Identify major philosophers and explain the significance of their ideas in the development of world history.

9. Know significant current world issues in terms of their historical development.

10. Know both the causes and effects of international conflict and the means of its resolution.

11. Know why nations have become, and are becoming, increasingly interdependent.

12. Know how scientific and technological advancements change society.

Grade 10 Outline (Skills)

THE LEARNER WILL:

1. Identify and define problems and suggest ways of solving them.

2. Locate and gather needed information.

3. Evaluate information.

4. Organize and analyze information, and draw conclusions.

5. Use maps and globes.

6. Have a sense of time and chronology.

7. Demonstrate growth in self-management.

8. Participate effectively in groups.

Grade Eleven: United States History

The study of United States history at the eleventh grade is a formal historical study of the entire United States. Since studies at eighth and ninth grades have, however, dealt with much pre-Civil War history and the structure and functioning of the United States government, it is appropriate that this study emphasize the economic, social, and political developments of the twentieth century.

The study of United States history demonstrates how the past influences our own time, and suggests solutions to current problems based upon the ways and means developed by our forefathers in resolving many of these same problems. Rather than emphasizing rote learning of dates and facts, study emphasis at this grade level should center upon the understanding of historical cause and effect, as well as the concept that most significant events in history are a product of many rather than one cause. By emphasizing understanding rather than memory, instruction at this grade level will enable students to better detect historical trends, analyze seemingly complex historical movements and events, and develop a sense of history for themselves, their State, and their nation.

Finally, students at this level will learn to grasp the concept of historical interpretation. They will examine the different theories relating to cause and effect in United States history. By examining these different theories, the student will develop the critical ability to judge the merits of competing schools of historical thought. With the student's new understanding comes wisdom. Students at this level begin to understand the full meaning of their origins, and of their nation's past, and so become better citizens, both now and in the years ahead.

Grade 11 Outline (Knowledge)

THE LEARNER WILL:

1. Know important developments in American history from the pre-Columbian period through the first years of exploration and discovery.

2. Know that European nations differed in their methods of colonizing the Americas.

3. Know important aspects of life in colonial America.

4. Know cause and effect, major events, and major personalities of the Revolutionary War.

5. Know how the problems created by the Articles of Confederation led to the development of the Constitution.

6. Know major trends, events, and problems of the "new nation".

7. Know that the period of 1815-1850 was a time of both nationalism and sectionalism.

8. Know that sectionalism overcame nationalism and resulted in the Civil War.

9. Know that the Civil War and the Reconstruction of the Union affirmed the power of the national government.

10. Know about major late 19th-century industrial and business developments.

11. Know causes and events of the settlement of the west.

12. Know that the late 19th-century was a time of great social, political, and economic change and unrest.

13. Know the major causes and events contributing to American foreign policy in the period 1865-1920.

14. Know that the "time between wars" (1920-1940) was a time of isolation, disillusionment with international involvement, rapid change, economic prosperity, and despair.

15. Know major causes, events, and results of World War II.

16. Know the major events, and their causes, and effects of the foreign policy of the United States since 1945.

17. Know that the years since 1945 have been a time of great social, economic, and political change.

18. Know that the post World War II years have been a period of great technological change.

Grade 11 Outline (Skills)

THE LEARNER WILL:

1. Identify and define problems and suggest ways of solving them.

2. Locate and gather needed information.

3. Evaluate information.

4. Organize and analyze information and draw conclusions.

5. Use maps and globes.

6. Have a sense of time and chronology.

7. Demonstrate growth in self-management.

8. Participate effectively in groups.

VOCATIONAL EDUCATION

PURPOSE AND OVERVIEW

The overall mission of vocational education in the public schools is to provide a program capable of meeting the individual needs, interests, abilities, and aspirations of each student which is realistic in light of actual or anticipated opportunities for gainful employment, advanced education, and practical life application.

Specific purposes of vocational education are to:

1. Prepare individuals for entry-level employment in recognized occupations, new occupations, and emerging occupations at various levels of competence.

2. Prepare individuals for participation in advanced or highly skilled post-secondary vocational and technical education.

3. Provide individuals with laboratory experiences and activities which assist them in the making of informed and meaningful occupational choices, and/or which serve as the foundation for skilled vocational-technical education.

4. Provide individuals with laboratory experiences and activities which assist them in: (a) making informed consumer decisions; and (b) the application of practical life skills.

Competency-based courses are offered in eight vocational program areas:

1. Prevocational Education
2. Agricultural Education
3. Business and Office Education
4. Marketing Education
5. Health Occupations Education
6. Home Economics Education
7. Industrial Arts Education
8. Trade and Industrial Education

Vocational education provides appropriate programs and/or supportive services for persons who have academic, socioeconomic, and/or other disadvantages or handicaps that prevent them from succeeding in regular programs. It serves both in-school and out-of-school youths as well as adults.* Guidance, placement, and follow-up are also integral components of this program.

Target Groups

The major target group to be served by vocational education programs are youths in grades 7-12. In planning a vocational education competency-based curriculum, the following groups are listed in priority order for determining which target populations are to be served:

1. Students desiring immediate employment upon termination of high school. This group may include those who drop out or who graduate from high school, and desire to enter directly into the labor force.

2. Students who will engage in nongainful employment. This group includes students who apply their vocationally-related skills in situations without receiving pay. Examples are homemakers and volunteers.

3. Students who will engage in post-secondary training and education at less than the baccalaureate degree level. This group includes those persons who will pursue one-year, two-year, or other training programs in business schools, apprenticeship programs, technical colleges, and technical institutes, but who will not pursue a four-year college program. It may also include students who go directly into the military from high school.

4. Students who will pursue four-year or longer-term college degrees in fields related to vocational program areas.

5. Students who pursue nonvocationally-related college programs and who wish to develop practical life skills related to vocational educational and/or to develop certain vocationally-related skills transferable to other career settings.

*NOTE: For purposes of this publication, "youths" is defined as persons between the ages of five and eighteen. "Adults" refers to the those persons over the age of eighteen. This is in support of, and not in conflict with, adult education provided by the community college system.

Philosophy

The State Board of Education has responsibility for providing direction and leadership to vocational education. This leadership is provided through the Master Plan for Vocational Education and other federally required plans.

The Master Plan encompasses all activities and programs, provides the framework for all other plans, and incorporates the vocational education philosophy of the State Board of Education. Implied within the philosophy of the State Board of Education are the following:

1. Vocational courses should be open to students regardless of race, sex, national origin, or handicapping conditions. Appropriate programs should be made available to students who have left high school and wish to pursue a course of study.
2. Teaching transferable skills and knowledge is important in preparing students to become adaptable in a changing work environment.
3. General education and vocational education are interdependent. General education programs should provide an awareness of career opportunities in their fields and how each is applied in the world of work. Vocational instruction should provide opportunities for students to apply communication and computation skills and other general education learnings to special occupational areas.
4. Employment needs and student aspirations should determine which occupational programs to offer with employment needs taking priority.
5. High quality vocational education programs require extensive planning with policies and guidelines from the state and federal government providing direction.
6. Input from local advisory committees, employment data, student surveys, and student follow-up are all necessary in planning, implementing, and evaluating local vocational programs.
7. Each student should be furnished written documentation of specific competencies achieved through participation in a vocational education program.
8. Counselors and all vocational teachers should form linkages with business, industry, and the community to increase the relevance of school for the work place. As a result, students should have the opportunity to participate in cooperative work experiences, internships, shadowing, and apprenticeships.
9. All students in vocational education should have an opportunity to develop and extend their learnings through participation in active vocational student organizations. The program of work for each

organization should be based on instructional competencies and be an integral part of the vocational program.

10. Strong vocational guidance, counseling, job placement, and follow-up services should be available to assist students in planning for their careers and enrolling in appropriate courses.

Planning and Designing the Curriculum

Trends in our society, as well as specific factors in the economy, technology, educational system, and the labor market influence planning an appropriate vocational education program. Vocational education planners need to design programs which will accommodate:

1. The availability of resources.

2. Changes in population characteristics.

3. Labor needs in new and emerging occupations, including small business ownership.

4. Labor needs in existing occupations with greater than average anticipated growth.

5. The rapid rates of increase in employment projected for the service sector of the public and private economy.

6. A projected decrease in occupations requiring a four-year college preparation.

7. The rapid changes in consumer technology.

8. Changes in individual and family lifestyles.

When designing the curriculum for a given school or the total school system, local planning personnel will need to organize a comprehensive and appropriate sequence of vocational offerings for students enrolled in grades 7-12 based on an assessment of the (1) student needs, interests, and aspirations, and (2) labor market demands and projections.

The following figure illustrates the minimal/ideal number of vocational program areas from which offerings may be selected to accommodate the elective program for a balanced, comprehensive secondary school system.

COURSE OF STUDY

MINIMUM PROGRAM	DESIRABLE PROGRAM	HIGHLY DESIRABLE PROGRAM*
Prevocational Program	Prevocational Program	Prevocational Program
PLUS	PLUS	PLUS
Introductory/Skill Development in a Single Sequence in no less than Three Program Areas	Introductory/Skill Development in Multiple Sequences in no less than Five Program Areas	Skill Development in Multiple Sequences in Seven Program Areas
		PLUS
		Specialized Non-sequenced Courses

*In a highly desirable program, students would also be provided the opportunity to participate in independent study or independent study combined with challenge exams for credit in programs which cannot be offered as formal courses in the school system.

Priority is to be given to the vocational skill development component of the program. However, planning must ensure that through the selection and combination of specific course offerings from the eight program areas, all students in grades 7-12 are given a chance to explore the world of work, begin to appraise their own individual talents, interests, aptitudes, and obtain vocational knowledge, skills, and attitudes in preparation for advanced training activities and/or practical life situations.

Within any program area of vocational education, the scope and sequence of course offerings may vary from district to district. In some program areas, it may take three or four courses to have a basic program while other program areas may require only one or two. What is basic in vocational education in any of the eight program areas is dependent upon the unique needs of an individual school district. To determine what is basic to a particular program area contact the district vocational education coordinator and review the Vocational Education: Program of Studies, Revised.

PREVOCATIONAL PROGRAM

Program Description

Prevocational Education is the focal point of vocational education at the middle school/junior high levels. The general purposes of the program are: (1) to assist students in developing skills in the decision-making process; (2) to assist them in developing plans regarding their occupational and educational futures; and (3) to assist the students in appraisal of their own abilities and goals. Instructional activities are designed for all male and female students.

Opportunities for leadership development and application of learned instructional competencies are provided by means of student participation in the Career Exploration Clubs of North Carolina (CECNC). This student organization is an integral component of the Prevocational Educational instructional program.

Learning Outcomes

The major objectives for Prevocational Education are that students will:

1. Identify their individual interests, abilities, and goals.
2. Develop positive self-concepts, positive attitudes toward work, and social skills necessary for effective relationships.
3. Recognize the dignity of each occupation and appreciate the contributions which each makes to society.
4. Explore employment trends and the nature of work in a wide range of careers related to their personal interests, abilities, and goals.
5. Explore and successfully participate in job tasks related to a variety of careers.
6. Explore basic processes of production, processing, servicing, and distribution in the American economy.
7. Practice creativity, initiative, and decision-making in solving problems related to career planning and satisfaction of personal, occupational, and family responsibilities.
8. Formulate educational plans in line with employment possibilities and appraisal of personal potential.

Scope and Sequence of Prevocational Education

Prevocational Education is taught by a team of teachers and requires laboratories conducive to activities which are related to 15 occupational clusters. The activities are occupational in nature, represent and simulate typical job tasks, include concepts representative of the world of work, and assist students in self-appraisal.

There are five exploratory laboratories in the comprehensive prevocational program. These labs are for Business Occupations, Environmental Occupations, Industrial Occupations, Service Occupations, and the Occupational Information Center (OIC).

Listed below are the laboratories and clusters explored within the labs.

BUSINESS OCCUPATIONS EXPLORATORY LAB	ENVIRONMENTAL OCCUPATIONS EXPLORATORY LAB	INDUSTRIAL OCCUPATIONS EXPLORATORY LAB	SERVICE OCCUPATIONS EXPLORATORY LAB
Business & Office Marketing & Distribution Communications & Media	Agribusiness & Natural Resources Environmental Control Marine Science Hospitality & Recreation	Manufacturing Construction Transportation Fine Arts & Humanities	Consumer & Homemaking Health Occupations Personal Service Public Service Hospitality & Recreation

OCCUPATIONAL INFORMATION CENTER

Each lab is supported by materials
in the Occupational Information Center.

Four laboratories provide the setting for students to engage in activities that simulate jobs in the world of work. Each lab integrates occupational information. However, the OIC also serves to assist in self-analysis, individual guidance, group guidance, etc. The basic purposes of the OIC are to: (1) identify student occupational interests, (2) enable students to narrow their occupational choices, and (3) enable students to examine their occupational choices in more depth.

The following chart provides an example of the scope and sequence which would allow the prevocational function to be offered within either a middle school or junior high school organizational structure.

SAMPLE SCOPE AND SEQUENCE FOR PREVOCATIONAL PROGRAMS

Grade 7	Grade 8	Grade 9
	OPTION A	
Prevocational Education(S)	Prevocational Education(S)	Prevocational Education(Y)
	OPTION B	
Prevocational Education(S)	Prevocational Education(S)	Introductory Program Area Courses(Y)
	OPTION C	
Prevocational Education(S)	Exploratory Program Area(S)	Introductory Program Area Courses(Y)

NOTE: Y = 1 year S = 1 semester

Prevocational Education Outline

1. Occupational Information Laboratory
    a. Identification of interests, values, abilities, aptitudes, and ambitions
    b. Examination of reasons why people work
    c. Examination of occupational equity
    d. Career research
        (1) worker trait groups
        (2) U.S. Department of Labor 15 career clusters
        (3) resources
        (4) stable, new, and emerging occupations to include labor market trends
    e. Career decision-making
        (1) influences on career decisions (economic, social, and family)
        (2) short range vs. long range goals
    f. Implementing career plans
        (1) individual four year plan
        (2) volunteer work
        (3) employability skills (seeking, finding, and keeping)

2. Research through Interest Groups

   a. Artistic
   b. Scientific
   c. Plants and animals
   d. Protective
   e. Mechanical
   f. Industrial
   g. Business detail
   h. Selling
   i. Accommodating
   j. Humanitarian
   k. Leading and influencing
   l. Physical performing

3. Research and Job Simulation through Career Clusters

   a. Industrial occupations laboratory--exploration activities and job simulations
      (1) transportation cluster
      (2) construction cluster
      (3) manufacturing cluster
      (4) fine arts and humanities cluster
   b. Business occupations laboratory--exploration activities and job simulations
      (1) business and office cluster
      (2) marketing and distribution cluster
      (3) communications and media cluster
   c. Environmental occupations laboratory--exploration activities and job simulations
      (1) agribusiness and natural resources cluster
      (2) environmental control cluster
      (3) marine science cluster
      (4) hospitality and recreation cluster
   d. Service occupations exploratory lab
      (1) consumer and homemaking cluster
      (2) health occupations cluster
      (3) personal service cluster
      (4) public service cluster
      (5) hospitality and recreation cluster

AGRICULTURAL EDUCATION

Program Description

Agricultural Education is a coordinated program of group and individual instructional activities consisting of classroom instruction, laboratory exercises, Future Farmers of America (FFA) activities, and supervised occupational experiences designed to develop competencies in high school students preparing to engage in agribusiness and agricultural occupations. Formal instruction may also be provided for out-of-school youth and adults who wish to upgrade their agricultural knowledge and skills.

For high school students, Future Farmers of America (FFA) activities are an integral part of the agricultural education program. Opportunities for development of leadership skills, cooperation, citizenship, and extension of classroom/laboratory learning experiences are provided through membership and participation in the organization.

Learning Outcomes

The broad objectives for students enrolled in Agricultural Education are to:

1. Develop an understanding of and appreciation for career opportunities in the broad field of agriculture and the preparation needed to enter and progress in agricultural occupations.
2. Develop agricultural competencies needed by individuals preparing to engage in agricultural occupations.
3. Develop those abilities in human relations which are essential in agricultural occupations.
4. Develop the ability to secure satisfactory placement and to advance in agricultural occupations through a program of continuing education.
5. Develop the abilities needed to exercise and follow effective leadership in fulfilling occupational, social, and civic responsibilities.
6. Develop practical life skills which will assist in planning, establishing, and maintaining a home and garden.

Scope and Sequence of Agricultural Education

The total scope and sequence of Agricultural Education includes varied program offerings for students in grades 9 through 12. Students may enter and progress through one of several program sequences in order to achieve their career objective within the agricultural education program. The determination of sequence(s) of offerings to make available to students in a local education agency should be based upon a documented assessment of the needs and interests of students, the labor needs and resources in the community, program enrollment, and availability of qualified teaching staff.

In Agricultural Education, the scope of basic program offerings includes:

1. Introduction to Agriculture/Natural Resources
2. Agricultural Production
3. Ornamental Horticulture
4. Agricultural Machinery/Equipment/Structures

Primarily based upon job market demand and student interests, each local education agency must decide on the variety and range of program offerings in each school. The chart below provides an example of the scope and sequence of program offerings for a given situation in which a comprehensive program is possible.

Agricultural Education, as illustrated in the chart below, includes instruction in three of six clusters of agricultural occupations. Three additional clusters may be offered by an LEA. These are Natural Resources and Environmental Protection, Aquaculture, and Forestry.

SAMPLE SCOPE AND SEQUENCE FOR AGRICULTURAL EDUCATION

Grade 9	Grade 10	Grade 11	Grade 12
	Ag Production I (Y)	Ag Production II (Y)	*Ag Production III (Y)
Introduction to Ag/Nat. Res.(Y)	Ornamental Horticulture I (Y)	Ornamental Horticulture II (Y)	*Ornamental Horticulture III (Y)
	Ag Machinery/ Equipment/ Structures I (Y)	Ag Machinery/ Equipment/ Structures II (Y)	*Ag Machinery/ Equipment/ Structures III (Y)
		Homestead and Gardening Skills (Y)	

NOTE: Y = 1 year

Courses are shown at first grade level to be offered and may be offered at any succeeding grade level.

*Cooperative work experiences, internships, and/or production work activities are strongly encouraged for each student enrolled at this level.

Introduction to Agriculture/Natural Resources is the basic course required for all students entering the program for the first time and is recommended for grade 9 or grade 10. When students enroll in Introduction to Agriculture/Natural Resources at grade 10, the Level I course of the selected cluster will begin at grade 11. This plan requires combining Level I and Level II courses into a two-hour block at grade 11 or combining Level II and Level III courses at grade 12 in order to complete the sequence. In individual schools where it is not feasible to offer Introduction to Agriculture/Natural Resources at grade 9 or grade 10, students may enter a modified Level I program at grade 10 or 11.

Agricultural Machinery/Equipment/Structures I Outline

1. FFA and SOEP
   - a. History and purposes of FFA
   - b. Importance and use of parliamentary procedure
   - c. Public speaking
   - d. Planning a SOEP

2. Occupational Opportunities in Agricultural Mechanics

3. Electric Arc Welding
   - a. Equipment, safety precautions, terminology, types of joints
   - b. Bead, groove, fillet welding, hole punching

4. Oxyacetylene Welding
   - a. Uses, equipment, safety precautions, terminology
   - b. Lighting torch, adjusting flame, shut-down
   - c. Heating metal for bending and shaping
   - d. Cutting metal and punching holes
   - e. Running a bead, fusion welds, brazing, and butt welds

5. Cutting Threads with Taps and Dies

6. Metal Working
   - a. Drilling holes
   - b. Using files
   - c. Using tin snips
   - d. Soldering
   - e. Cold chisels
   - f. Hand and power hacksaws
   - g. Shaping and forming metals
   - h. Metal working lathe

7. Internal Combustion Engines

    a. Small engine fundamentals
    b. Maintenance
    c. Tune-up
    d. Repair
    e. Disassembly and assembly

8. Structures and Buildings

    a. Reading and using blueprints
    b. Construction tools
    c. Major parts of a building
    d. Types of farm buildings
    e. Structural, environmental, and economic factors of farm buildings
    f. Fastening devices
    g. Making joints and cuts in wood construction
    h. Glass work
    i. Farm fencing
    j. Concrete construction

Agricultural Machinery/Equipment/Structures II Outline

1. Rural Electrification

    a. Electrical terms, supplies, and equipment
    b. Calculating cost of electricity
    c. Planning and wiring a small farm building

2. Automation and Mechanization

3. Water and Waste Disposal

4. Welding

    a. Electric arc--vertical and horizontal welding
    b. Electric arc--carbon arc torch
    c. Electric arc--pipe welding
    d. Oxyacetylene--filled and lap welds
    e. Oxyacetylene--bronze welding

5. Tractor Maintenance

    a. Terms related to maintenance
    b. Gasoline and diesel engines
    c. Fuels and lubricants
    d. Transmission of power
    e. Types of bearings
    f. Preventive maintenance

   g. Safety precautions
   h. Wheel bearings
   i. Oil and oil filters
   j. Tuning
   k. Adjusting the clutch, brake, and valve tappets
   l. Servicing air cleaners, fuel systems, and batteries

Agricultural Machinery/Equipment/Structures III Outline

1. Employment Regulations, Policies, Standards

2. Electric Arc Welding

   a. Overhead welding
   b. Hardsurfacing
   c. MIG and TIG welding
   d. Cast iron welding

3. Oxyacetylene Welding

   a. Brazing cast iron
   b. Hardsurfacing
   c. Vertical and overhead welding

4. Tractor Maintenance and Repair

   a. Hydraulic systems
   b. Engines disassembly, repair, and reassembly
   c. Power take off
   d. Brakes and clutches

5. Automation and Mechanization

   a. Planning for automation
   b. Installing electric controls

6. Electric Motors and Drives

   a. Electric motor terms
   b. Types of electric motors
   c. Accessories and protective devices
   d. Electric motor nameplates
   e. Motor to machine drives
   f. Selection for a given job
   g. Parts of electric motors
   h. Advantages of electric motors
   i. Care and maintenance
   j. Belts and pulleys

7. Agricultural Equipment

   a. Safety and principles of operation
   b. Operator's manuals
   c. Sprayer calibration
   d. Parts department records

8. Water and Waste Disposal

   a. Terracing and strip cropping
   b. Irrigation systems

Agricultural Production I Outline

1. Leadership/FFA

   a. Parliamentary procedure
   b. Public speaking
   c. Supervised occupational experience

2. Animal Science

   a. Feed nutrients for farm animals
   b. Breeding farm animals
   c. Disposing of animal carcasses
   d. Fitting and showing farm animals

3. Soil Science

   a. Classification of soils
   b. Measuring crop land
   c. Interpreting soil sample reports
   d. Nutrient requirements and utilization for farm crops

4. Agricultural Chemicals

   a. Controlling weeds in crops
   b. Applying pesticides safely

5. Welding with Electric Arc Welder

   a. Cutting and boring with the electric arc welder
   b. Hard-surfacing with the electric arc welder
   c. Making simple repairs on farm machinery

6. Hand Tools

   a. Using hand tools safely
   b. Sharpening hand tools

7. Farm Tractors

    a. Operating the farm tractor safely
    b. Routine maintenance of the farm tractor

8. Laying Off Foundations with Stakes and Batter Boards

Agricultural Production II Outline

1. Animal Science

    a. Selecting and evaluating livestock
    b. Feeding farm animals
    c. Function of the digestive system of farm animals
    d. Housing farm animals
    e. Controlling internal and external parasites
    f. Identifying plants that are harmful to farm animals
    g. Health regulations on shipping farm animals

2. Crop Science

    a. Controlling common crop insects
    b. Identification and control of plant diseases
    c. The effect of nematodes on crop yield
    d. Plant nutrient deficiencies in agricultural crops
    e. Reading a soil map
    f. Drying and storing grain

3. Farmstead Maintenance

    a. Mixing, pouring, and finishing concrete
    b. Planning a plumbing job for the farm business
    c. Installing plumbing fixtures
    d. Selecting and installing electrical fixtures and outlets
    e. Following safety precautions while working with electricity
    f. Repairing farm machinery and equipment
    g. Controlling the tractor under varying field conditions

Agricultural Production III Outline

1. Animal Science

    a. Identifying common farm animal diseases
    b. Treating diseases and parasites of farm animals
    c. Balancing rations for farm animals
    d. Reproducing life cycle of swine intestinal roundworm

2. Crops and Soils

   a. Cultural practices to follow in producing farm crops
   b. Controlling soil erosion on the farm

3. Farm Business Management

   a. Overhead and operating costs of farm enterprise
   b. Analyzing the farm business
   c. Business law common to farmers
   d. Inventorying the farm business
   e. Preparing a net worth statement
   f. Marketing farm products
   g. Planning a farm layout
   h. Keeping farm records
   i. Preparing farm taxes
   j. Storing farm crops
   k. Borrowing money to operate a farm
   l. Utilization of farm labor

4. Farmstead Maintenance

   a. Preparing a bill of materials
   b. How the hydraulic system works
   c. Maintenance of the tractor and farm machinery
   d. Construction and repairing small farm buildings

Forestry I Outline

1. FFA and SOEP

   a. History and purposes of FFA
   b. Importance and use of parliamentary procedure
   c. Public speaking
   d. Planning a SOEP

2. Forestry

   a. Historical development of forestry and forestry's economic importance
   b. Multiple use forestry
   c. Employment/working in forestry

3. Technical Forestry

   a. Characteristics and growth requirements of trees
   b. Tree identification and dendrology
   c. Composition and density of forests
   d. Forest ecology
   e. Forest measurements--mensuration

    f. Forest management
    g. Siloicature
    h. Harvesting and product utilization
    i. Forest protection--fire, insects, disease

Forestry II Outline

1. Advanced Tree Identification--Dendrology

2. Timber Harvesting

    a. Environmental aspects of timber harvesting
    b. Timber acquisition
    c. Silvica hurol harvesting systems
    d. Logging systems, practices, cost analysis

3. Mensuration/Forest Measurements

    a. Land measurements
    b. Forest measurement/inventory, product measurement

4. Forest Products Marketing

    a. Product marketing
    b. Forest products processing

5. Forest Protection

    a. Fire protection
    b. Insect protection
    c. Forest diseases

6. Forest Regeneration

7. Urban Forestry

Forestry III Outline

1. Genetic Tree Improvement and Seed Production

2. Forest Nursery and Christmas Tree Production

3. Forest Inventory

    a. Deed location and mapping
    b. Advanced surveying techniques
    c. Aerial photos use and interpretation
    d. Timber cruising, mapping, and marking

4. Forestry Practicisms

    a. Logging
    b. Site preparation
    c. Prescribed burning
    d. Regeneration
    e. Forest management

5. Saw Milling, Lumber Grinding, Wood Preservation

6. Forestry Finances, Taxation, Government Assistance

7. Urban Forestry

Homestead and Gardening Skills Outline

1. Agriculture/Agribusiness

    a. An overview
    b. Its importance in economy
    c. Need for agricultural education

2. FFA and SOEP

    a. History and purposes of FFA
    b. The local FFA program of activities
    c. Planning a SOEP
    d. Keeping SOEP records

3. Homestead Planning

    a. Factors to consider
    b. Components of a homestead plan
    c. Lawns and grasses
    d. Shrubs and plants
    e. Fruit and nut production

4. Homestead and Gardening Mechanics

    a. Hand tools, sprayers, dusters
    b. Mowers, tractors, tillers
    c. Electricity
    d. Plumbing
    e. Carpentry, fences, gates
    f. Concrete
    g. Paints

5. Home Safety

    a. Storage of supplies, fuels, chemicals
    b. Safe use of chemicals
    c. Safety practices in and around home

6. Home Gardens

    a. Economics and other values
    b. Factors in planning
    c. Selecting site
    d. Soil samples
    e. Insects and diseases
    f. Harvesting, storing, marketing

Introduction to Agriculture/Natural Resources Outline

1. Orientation and Guidance

    a. Objectives of vocational agriculture
    b. Areas of agriculture/agribusiness
    c. Opportunities and educational requirements
    d. Supervised occupational experience programs
    e. Agricultural agencies and organizations

2. Leadership/FFA

3. Agricultural Mechanics

    a. Introduction to agricultural mechanics
    b. Identifying skills needed in agricultural mechanics
    c. Tools and equipment in agricultural mechanics
    d. Materials and supplies for agricultural construction
    e. Materials used in concrete and masonry construction
    f. Using simple drawings and figuring a bill of materials
    g. Measuring, marking and sawing
    h. Generation and distribution of electricity
    i. Understanding and using electrical terms
    j. Identification of electrical circuits and controls
    k. Computing the cost of electricity
    l. Identification, care, and operation of different types of electric motors
    m. Operation and care of small gasoline engines
    n. Electric arc and oxyacetylene welding

4. Animal Science

    a. Introduction to animal science
    b. Identification, selection, and judging of major breeds of livestock and poultry
    c. Animal nutrition
    d. Structures for livestock farming
    e. Identification and control of livestock pests and diseases
    f. Marketing livestock and livestock products

5. Soil Science

    a. Planning a unit in the Supervised Occupational Experience Program (SOEP) to reflect skill development
    b. Soils and their characteristics
    c. How to collect soil samples

6. Plant Science

    a. Importance of plant science in our society
    b. Identification and classification of plants according to use and economic value
    c. The plant, its nutrient requirements and the function of its parts
    d. Methods of plant propagation
    e. Identification and control of plant diseases and insects
    f. Weeds and their control

7. Agricultural Resources and Environmental Protection

    a. Introduction to agricultural resources and environmental protection
    b. The major fish species and how they are produced in North Carolina
    c. Water--its use and characteristics
    d. Major minerals found in North Carolina
    e. Types of outdoor recreational activities available to North Carolina citizens
    f. Pollution and its control

8. Agricultural Economics

    a. Introduction to economics and its relationship to agriculture
    b. Relationship of economics to man, resources and farming
    c. Economics terms, principles, and concepts
    d. Types of markets and market structures used for selling and buying agricultural goods and services

Natural Resources and Environmental Protection I Outline

1. Leadership/FFA
    - a. Parliamentary procedure
    - b. Public speaking
    - c. Supervised occupational experience

2. Introduction to Agricultural Resources
    - a. Importance of agricultural resources
    - b. Agricultural resources occupations, careers, and skills

3. Forest Resources
    - a. Benefits of forest resources
    - b. Tree study
    - c. Tree identification
    - d. Forest management services
    - e. Forest fire protection
    - f. Forest diseases and insects
    - g. Forest measurements

4. Wildlife Resources
    - a. Fish and wildlife agencies and career opportunities
    - b. Establishing and managing game fish ponds
    - c. Selecting, identifying, and feeding birds and animals
    - d. Safety in the hunting and harvesting of wildlife

5. Soil and Water Resources
    - a. Soil formation and development
    - b. Soil classification and land use evaluation
    - c. Land measurements
    - d. Land surveying
    - e. Soil analysis
    - f. Water as an agricultural resource

Natural Resources and Environmental Protection II Outline

1. Wildlife Resources
    - a. Testing water quality of fish ponds, lakes, and streams
    - b. Fishery resources measurements
    - c. Game bird management
    - d. Common pests of wildlife

2. Hunting Equipment Safety

3. Atmospheric Resources

    a. Natural processes in the atmosphere
    b. Pollution of the atmosphere
    c. Maintaining air quality
    d. Effects of air pollution

4. Water Resources

    a. Identifying water sources
    b. Water pollution and its control
    c. Water for irrigation purposes

5. Forest Management

    a. Forest insect and disease control
    b. Reforestation planning
    c. Cruising timber

Natural Resources and Environmental Protection III Outline

1. Wildlife Resources

    a. Techniques of fish culture and stocking
    b. Establishing and developing hunting preserves
    c. managing wildlife resources

2. Air Pollution Sampling

3. Water Resources

    a. Sampling and analysis of water
    b. Measurement of water demand

4. Natural Resources Used for Recreational Areas

    a. Physical factors in recreation enterprise selection
    b. Financing the enterprise
    c. Developing the plan
    d. Budgeting the enterprise
    e. Legal and safety responsibilities
    f. Public relation programs
    g. Recreational facility design
    h. Maintenance of recreational areas

Ornamental Horticulture I Outline

1. Leadership/FFA
    a. Parliamentary procedure
    b. Public speaking
    c. Supervised occupational experience
2. Introduction to Horticultural Science
3. Small Engines
    a. Small engine fundamentals
    b. Small engine tune-up
    c. Small engine maintenance
4. Customer Relationships
5. Occupational Opportunities in Ornamental Horticulture
    a. Occupations and career fields
    b. Basic skills needed to enter these fields
6. Plant Growth and Development
    a. Parts of plants and functions of these parts
    b. Processes of growth in horticultural plants
7. Pruning Ornamental Plants
    a. Pruning tools and supplies
    b. Methods of pruning
8. Planting or Transplanting Ornamental Plants
    a. Container-grown plants
    b. Bareroot plants
    c. Balled and burlapped plants
9. Greenhouse Management
    a. Structures for growing plants
    b. Management and use for greenhouse equipment
10. Horticultural Soils
    a. Soil characteristics
    b. Soilless culture

11. Horticultural Chemicals

    a. Plant nutrients
    b. Pesticides

12. Plant Propagation

    a. Sexual propagation
    b. Asexual propagation

Ornamental Horticulture II Outline

1. Plant Identification

    a. Identifying ornamental plants
    b. Selection of plants for the landscape

2. Fertility and Fertilizing

    a. Fertilizer types
    b. Fertilizer deficiencies
    c. Fertilizer application
    d. Soil test report

3. Pest Control

    a. Pest identification
    b. Chemical pest control

4. Special Purpose Pruning

    a. Pruning evergreen and deciduous shrubs
    b. Root pruning
    c. Pruning and training for special purposes

5. Flowering Crops in the Greenhouse

6. Floral Design

    a. The art of floral design
    b. Landscaping design
    c. Spacing materials and equipment
    d. Landscape installation and maintenance

7. Nursery Propagation

    a. Cuttings
    b. Grafting and budding

8. Growing Nursery Stack

    a. Facilities for nursery stock
    b. Transplanting and slathouse care

9. Digging and Planting Trees and Shrubs

Ornamental Horticulture III Outline

1. Floral Crop Scheduling

    a. Schedule of activities
    b. Flowering crop culture

2. Nursery Seed Germination

3. Turf Identification

    a. Identification of turfgrass varieties
    b. Selection of proper turf for a given area

4. Turf Site Preparation

    a. Subsurface drainage
    b. Surface grading
    c. Preparing turf seed bed

5. Turf Establishment

    a. Seeding
    b. Sodding
    c. Stolons

6. Turf Maintenance

    a. Mowing equipment and procedures
    b. Identifying and controlling turf pests
    c. Turf fertilization
    d. Turf watering

BUSINESS AND OFFICE EDUCATION

Program Description

The mission of Business and Office Education at the secondary level is to provide students with meaningful instruction for and about business. Instruction in this program encompasses business skills and techniques, economic understanding, and attitudes necessary to enable students to participate in our economy as wage earners and consumers. It is designed as well to provide students with the basics to enable them at some future date to begin, purchase, or manage a business of their own. In addition, it provides the necessary basics for those students desiring to enter into certain lower-level or junior management training programs in larger businesses and corporations.

Opportunities to develop and apply leadership, social, civic, and business-related skills are provided through Future Business Leaders of America (FBLA), the vocational student organization for Business and Office Education students. As an integral part of the business instructional program, FBLA activities enhance classroom instruction. These activities directly relate to the major objectives of Business and Office Education.

Learning Outcomes

At the secondary level, programs in Business and Office Education are designed to provide for student development in the following areas:

1. Occupational skills necessary for initial employment and advancement in a business career.

2. Economic understanding needed for intelligent participation in our economic system.

3. Background information for further study in the field of business.

4. Computer literacy for personal use and work-related environments.

Scope and Sequence of Business and Office Education

The Business and Office Education scope and sequence offer a variety of courses for students in grades 8 through 12. Determining which sequence of courses to make available should be based upon documented assessment of student interests and occupational needs, employment needs, availability of qualified teaching personnel, and facilities.

Courses in Business and Office Education have been designed as: (1) semester courses, (2) one-year courses, and (3) two-year courses. Two semester and two year courses must be taken in sequence. It may not be practical or appropriate, however, for every student who starts such a set of courses to complete the set; this will depend on the student's ability and career objective.

Regardless of the scope and sequence offered, Introduction to Business should be included in any school's business curriculum and should be taken by all business students. This course develops economic and consumer understandings and provides career information fundamental to any business curriculum.

The chart that follows provides an example of the scope and sequence of program offerings for a given situation in which a comprehensive program is possible.

Where community needs as well as student needs and interest exist, Secretarial/Word Processing Occupations I should be offered instead of Shorthand I. The competencies in Secretarial/Word Processing include shorthand as well as office competencies relating to word processing tasks.

Departmental structure, community needs, and student needs and interests should be the determining factors in offering Computerized Accounting Occupations I and II. These courses may be offered in addition to Accounting I and II; however, students should not enroll in both Accounting I and Computerized Accounting Occupations I.

Based on student interests and needs, a school may choose other courses in the Business and Office Education Scope and Sequence Chart such as Business Math, Business Communications, or Business Law to complement the skill development program sequences shown in the chart.

SAMPLE SCOPE AND SEQUENCE FOR BUSINESS AND OFFICE EDUCATION

Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Business Exploration (S)	Introduction to Business (Y)	Recordkeeping (Y)	Office Occupations I	*Office Occupations II
	Introduction to Computers (S)	Computer Applications (S)	Secretarial/ Word Processing Occupations I (Y)	*Secretarial/ Word Processing Occupations II (Y)
	Typewriting I/Keyboarding	Typewriting II(Y)	Computerized Accounting Occupations I (Y)	*Computerized Accounting Occupations II (Y)
			Business Data Processing Occupations I (Y)	*Business Data Processing Occupations II (Y)
		Business Math (Y)		*Business Mgmt/Ownership (Y)
		Shorthand I (Y)	Shorthand II (Y)	
		Accounting I (Y)	Accounting II (Y)	
			Business Communications (Y)	
			Business Law(S)	

NOTE: Y = 1 year S = 1 semester

Courses are shown at first grade level to be offered and may be offered at any succeeding grade level.

*Cooperative work experiences, internships, and/or production work activities are strongly encouraged for each student enrolled at this level.

Accounting I and II Outline

1. Introduction to Accounting
2. Simple Accounting Cycle
3. Accounting Cycle with Combination Journals and Subsidiary Ledgers
4. Payroll Systems and Personal Income Tax
5. Introduction to Data Processing
6. Special Accounting Transactions
7. Accounting for Different Types of Ownership
8. Corporation Accounting
9. Automated Accounting System
    a. General ledger
    b. Subsystems
10. Cost Accounting
11. Special Problems in Sales Accounting
12. Management of Accounting Data

Computerized Accounting Occupations I and II Outline

1. Orientation to the Business World
2. Orientation to Computerized Accounting Occupations
3. Business Financial Operations
4. Computerization of Financial Data
5. Accounting System
6. Banking Activities
7. Specialized Accounting Applications
    a. Sales and accounts receivables system
    b. Purchases and accounts payable system
    c. Payroll system
    d. Inventory control

8. Office Procedures

9. Skills for Office Employment

Business Communications Outline

1. Foundations of Effective Communication

    a. Speaking/listening skills
    b. Language
        (1) parts of speech
        (2) word choice and vocabulary
        (3) capitalization, abbreviations, and numbers

2. Oral Communication

    a. Public speaking
    b. Parliamentary procedures
        (1) rules of order
        (2) organization and conduct of business

3. Written Communication

    a. Business letters
    b. Memos and informal reports
    c. Formal reports/summaries
    d. Telegrams
    e. News release
    f. Minutes

Business Data Processing Occupations I and II Outline

1. History and Levels of Data Processing

2. Data Processing Cycle

3. Use of Computers in Business and Industry

4. Impact of Computer on Society

    a. Medical profession
    b. Airline industry
    c. Retail stores
    d. Governmental agencies
    e. Individual activities

5. Capabilities and Limitations of Computers

6. Input and Output Methods and Media

7. Micro- and Minicomputer Functions

    a. Applications
    b. Advantages and limitations
    c. Implication for the future

8. Online and Offline Data

9. Programming/Computer Languages

    a. FORTRAN
    b. COBOL
    c. BASIC
    d. Others

10. Employment Opportunities

    a. Employment skills
    b. Education requirements

11. Business Systems

    a. Accounts payable
    b. Personnel accounting
    c. Payroll
    d. Accounts receivable
    e. Inventory

Business Exploration Outline

1. Business Careers

    a. Areas
        (1) computer and related occupations
        (2) accounting and related occupations
        (3) secretarial/word processing occupations
        (4) office support occupations
        (5) business management/ownership
    b. Requirements
        (1) personal
        (2) educational
        (3) physical
    c. Advantages/disadvantages
    d. Future outlook
    e. Salary ranges
    f. Advanced opportunities

2. Job Finding Skills

    a. Attitudes
    b. Classified ads
    c. Letters of application
    d. Applications/resumes
    e. Interviews
    f. Social security numbers

3. Computer Literacy

    a. Computer systems
    b. History
    c. Uses of computers
        (1) government
        (2) science
        (3) business
        (4) education
        (5) homes
    d. Computer abuse

4. Business Tools

    a. Keyboarding
        (1) parts of computer system
        (2) keyboarding techniques
    b. Word processing
    c. Ten-key pad
    d. Telephone

5. Computer Programming

    a. Flowcharts
    b. Low resolution statements
    c. Executing programs

6. Business Ownership

    a. Small business
    b. Types of businesses
    c. Characteristics of business
    d. Economic principles

Business Law Outline

1. Introduction

    a. Origin, development, and meaning of law
    b. Nature and kind of law
    c. System of courts
    d. Crimes and torts

2. Contracts

    a. Making contacts
    b. Types of contracts
    c. Elements of a contract
    d. Termination of contract
    e. Remedies for breach

3. Law of Sales

    a. Nature of sales contracts
    b. Ownership and risk
    c. Warranties and product liability
    d. Consumer protection

4. Property and Property Right

    a. Personal property
    b. Real property

5. Insurance

    a. Nature and theory of insurance
    b. Types of insurance
    c. Rights and responsibilities

6. Employer/Employee Relations

    a. Employment contracts
    b. Employee protection
    c. Fringe benefits
    d. Government regulations

Business Management/Ownership Outline

1. Nature of American Business

2. Environment of American Business

3. Business Ownership

4. Management Functions

5. Personnel Management

6. Compensation and Benefits

7. Labor Relations and Legislation

8. Women and Minorities in Business
    a. Recent trends
    b. Availability of resources
    c. Legislation
    d. Competition
    e. Career opportunities

9. Leadership
    a. Parliamentary procedures
    b. Leadership development

10. Communications

11. Marketing

12. Purchasing and Production

13. Financial Management

14. Government and Business

15. Managing Information
    a. Information systems
    b. Financial records
    c. Office services
    d. Research/decision-making

Business Math Outline

1. Basic Skills Review
    a. Fundamental processes
    b. Aliquot parts and fractions
    c. Decimals and percentages
    d. Common weights and measures

2. Cash Records and Banking
    a. Personal
    b. Business

3. Buying and Selling

4. Credit
    a. Charge accounts
    b. Installment buying
    c. Promissory notes

5. Payroll

   a. Gross earnings
   b. Deductions
   c. Payroll register
   d. Income tax returns

6. Investments and Capital

   a. Savings accounts
   b. Stocks and bonds
   c. Partnership
   d. Insurance

7. Business Graphs

   a. Preparation, interpretation, and use
      (1) bar graphs
      (2) line graphs
      (3) circle graphs
   b. Computer mathematics
      (1) decimal system
      (2) binary system

Computer Applications Outline

1. Care of Equipment and Materials

   a. Terminology
   b. Utilization and maintenance

2. Systems Software

   a. DOS functions
   b. DOS commands

3. Applications Software

   a. Data base management
   b. Mailing list
   c. Word processing
   d. Spreadsheet (financial analysis)
   e. Graphics
   f. Inventory
   g. Integrated software
   h. Simulation software
   i. General ledger
   j. Accounts payable
   k. Accounts receivable
   l. Payroll
   m. Telecommunications

4. Impact of Computers on Business and Individuals

5. Career Opportunities

6. Software Evaluation

Introduction to Business Outline

1. Free Enterprise System

    a. Profit motive
    b. Business organization
    c. Business cycles
    d. Economic systems

2. Business and the Consumer

3. Economic Risks and Insurance

4. Banks and Banking Services

5. Credit

6. Savings and Investments

7. Money Management and Budgeting

8. Government, Business, and Labor

Introduction to Computers Outline

1. History of Computer Industry

2. The Impact of Computers on Business and Individuals

3. The Computer System and Its Components

    a. Data processing cycle
    b. Central processing unit
    c. Input/output devices and media

4. Survey of Computer Languages

    a. Flowcharting
    b. Languages

5. Career Opportunities

Office Occupations I and II Outline

1. Office Orientation

    a. Classification of industries
    b. Organizational structure of business
    c. Comparison of office jobs
    d. Analysis of duties, skills, and personal traits

2. Oral Communications

    a. Receiving callers
    b. Placing and answering telephone calls
    c. Using telephone directories
    d. Selection of appropriate telephone, telegraphic, or mail gram service
    e. Telephone techniques--screening, referrals, making appointments, routing, and terminating calls

3. Information Processing

    a. Letter composition
    b. Dictation and transcription of mailable letters
    c. Comparison of a traditional office setting to a word processing center
    d. Types of word/data processing equipment
    e. Use of reference materials for proofreading and editing
    f. Interpersonal skills

4. Records Management

    a. Procedures for filing
    b. Storage and retrieval of files
    c. Updating files
    d. Use of micrographic processes
    e. Use of electronic data equipment in filing

5. Repographics

6. Mailing and Shipping Services

    a. Classes of U.S. mail
    b. Handling incoming and outgoing mail
    c. Selection of appropriate mail services

7. Skills for Office Employment

    a. Job information sources
    b. Preparation of letter of application, personal data sheet, and application form
    c. Job interview

8. Business Systems

    a. Cash control systems
    b. Inventory systems
    c. Payroll systems
    d. Purchasing systems
    e. Sales systems

9. Planning Business Travel

    a. Travel services
    b. Hotel/motel arrangements
    c. Itineraries and expense reports

10. Personal Taxes

    a. Sources of revenue
    b. Preparation of income tax forms

11. Meetings and Conferences

    a. Facilities arrangements
    b. Preparation of materials
    c. Minutes and follow-up

Recordkeeping Outline

1. Introduction

    a. Purpose
    b. Accuracy
    c. Legibility
    d. Computation

2. Personal Recordkeeping

    a. Planning personal finances
    b. Records of income and expenses
    c. Summarizing income and expenses
    d. Personal taxes

3. Cashier Records

4. Petty Cash Records

5. Banking Records

6. Sales Records

7. Purchase Records

8. Payroll Records

9. Records Management

    a. Alphabetic filing
    b. Subject and numeric filing
    c. Filing methods
    d. Records control

10. Automation

    a. Manual and mechanical data processing
    b. Computer media
    c. Electronic media

11. Introduction to Accounting

    a. Accounting equation
    b. Journals and journalizing
    c. End-of-period reports

Secretarial/Word Processing Occupations I and II Outline

1. Orientation to Secretarial/Word Processing Occupations

2. Communication and Word Processing

    a. Recording and transcribing skills
    b. Distribution skills
    c. Composition skills
    d. Interpersonal communication skills
    e. Storage and retrieval skills

3. Skills for Office Employment

    a. Interpersonal skills
    b. Career position analysis
    c. Employment processes

Shorthand I and II Outline

1. Introduction to Shorthand

2. Shorthand Theory

3. Reading and Writing

4. Dictation

5. Transcription

6. Mailable Letters

7. Speed and Accuracy in Dictation

8. Speed and Accuracy in Transcription

9. Attitudes and Work Habits

10. Office-Style Dictation

11. Skill Integration

12. Specialized Dictation/Transcription

13. Preparation for Employment

Typewriting I/Keyboarding and Typewriting II Outline

1. Basic Typewriting/Keyboarding Skills

    a. Parts of equipment
    b. Alpha keys
    c. Numeric keys
    d. Symbols
    e. Special function keys
    f. Techniques
    g. Formatting

2. Basic Typewriting/Keyboarding Applications

    a. Personal notes
    b. One-page manuscripts
    c. Personal/business letters with envelopes
    d. Business letters with envelopes
    e. Outlines
    f. Reports with/without footnotes
    g. Tables

3. Improve Basic Typewriting/Keyboarding Skills and Applications

    a. Techniques
    b. Speed and accuracy
        (1) straight copy
        (2) statistical copy
        (3) rough-draft copy
    c. Applications
        (1) tables
        (2) reports
        (3) personal/business letters

- d. Basic English skills and composing skills
    - (1) grammar guides
    - (2) punctuation guides
    - (3) number guides

4. Personal/Professional Skills

- a. Applications
    - (1) unbound manuscripts
    - (2) letters
- b. English skills
- c. Professional typewriting/keyboarding activities
    - (1) interoffice memo
    - (2) address list
    - (3) index card list
    - (4) agenda
    - (5) invoices
    - (6) appointment schedule
    - (7) minutes of meeting
    - (8) itinerary
    - (9) two-page form letter

5. Business Applications

- a. Format tables
- b. Multi-page manuscripts
- c. Business reports
- d. Unarranged materials
- e. Filling in forms
- f. Composition
    - (1) language arts skills
    - (2) proofreading

6. Productivity Levels

- a. Timed straight copy typing
- b. Timed rough-draft typing
- c. Timed statistical typing
- d. Duplicating/copying production
- e. Timed business letter typing

MARKETING EDUCATION

Program Description

The mission of Marketing Education is to prepare students for initial employment and advancement in marketing, merchandising, and management of enterprises engaged in marketing. The instructional program includes subject matter and learning experiences related to the performance of activities that direct the flow of goods and services from the producer to the consumer.

Emphasis is on the development of attitudes, skills, and knowledge related to marketing, merchandising, management, and business ownership. Individuals are prepared to perform one or more of the marketing functions such as: selling, buying, pricing, promoting, financing, transporting, storing, marketing research, and marketing management. In addition, instructional courses include varying emphasis on technical knowledge of products or services marketed. Special emphasis is placed on providing students with cooperative and other work experiences which allow for the practical application of the knowledge and skills acquired in the classroom.

Through Marketing Education, students develop those basic competencies which enable them to pursue further training in their chosen marketing careers.

Opportunities to develop leadership, social, civic, and vocational skills in marketing are provided through the Distributive Education Clubs of America (DECA), the vocational student organization for Marketing Education students. As an integral part of the instructional program, students engage in activities that extend their interests, knowledge, skills, and attitudes in selected aspects of marketing. These organized activities help to familiarize business people, faculty, parents, and other students with the Marketing Education Program.

Learning Outcomes

The broad objectives for students enrolled in Marketing Education are to enable them to:

1. Make realistic career choices in marketing.

2. Attain their occupational objectives in marketing.

3. Increase their occupational efficiency through classroom instruction, individual projects, on-the-job training, merchandising laboratory experiences, internships, and co-curricular student organization activities.

4. Develop an understanding and appreciation of the social and economic values of the production, distribution, and consumption of goods and services.

5. Develop initiative and leadership.

6. Develop the desire to further their education in the field of marketing.

Scope and Sequence of Marketing Education

The total scope and sequence of Marketing Education includes varied program offerings for students in grades 9 through 12. Students may enter and progress through one of several program sequences in order to achieve their major objectives in Marketing Education. The determination of which sequence(s) of offerings to make available to students in a local education agency should be based upon a documented assessment of the needs and interests of students, the employment needs and resources of the community, program enrollment, and the availability of qualified teaching personnel.

The chart that follows represents the scope and sequence of program offerings for a given situation in which a comprehensive Marketing Education program is desirable and possible.

SAMPLE SCOPE AND SEQUENCE FOR MARKETING EDUCATION

Grades 9-10	Grades 10-12	Grades 11-12	Grades 11-12
Introduction to Marketing (Y)	*Marketing (Y)	*Marketing and Merchandising (Y)	*Marketing, Merchandising, and Management (Y)
	*Fashion Merchandising (Y)	*Fashion Merchandising and Management (Y)	LEVELS I and II
	Sales Fundamentals (Y)	Sales and Management (Y)	* SPECIALIZED OFFERINGS
	**Fundamentals of Selling (S) and **Fundamentals of Advertising (S)		
	Advertising and Sales Promotion (Y)	Advertising Design and Sales Promotion (Y)	Marketing, Management, and Ownership (Y)

NOTE: Y = 1 year S = 1 semester

Courses are shown at first grade level to be offered and may be offered at any succeeding grade level.

*Cooperative work experiences, internships, and/or production work activities are strongly encouraged for each student enrolled at this level.

**NOTE: Competency listings and test item banks for Fundamentals of Selling and Fundamentals of Advertising are included in Sales Fundamentals and Advertising and Sales Promotion, respectively.

In addition to the traditional offerings, the more comprehensive programs in Marketing Education may include one or more course options or specialized offerings based upon the needs of the local community. Several possible local offerings that focus on either a specific marketing function or a specialized product/service technology are identified below:

Those that Focus on
Specialized Marketing
Functions:

- Marketing Research
- Retail Merchandising
- Sales Promotion
- Visual Merchandising

Those that Focus on
Specialized Product and
Service Technology:

- Food Marketing & Mgmt
- Floristry Design & Mgmt
- Hotel & Motel Mgmt
- Service Station Marketing & Mgmt
- Tourism Marketing & Mgmt
- Inventory Management
- Wholesaling

Advertising and Sales Promotion Outline

1. Advertising and Sales Promotion Functions
2. Advertising Industry Operations
3. Planning and Designing Advertising
4. Advertising and Sales Promotion Media and Special Events
5. Budgeting and Scheduling Advertising
6. Selecting Merchandise to Advertise

Advertising Design and Sales Promotion Outline*

*NOTE: Competency listings and a test item bank are currently being developed for this course.

1. Basics of Design
2. Technical Art Tools
3. Basic Production Processes
4. Functions and Procedures of Advertising Agencies
5. Consumer Marketing Research
6. Advanced Sales Promotion Techniques

Fashion Merchandising Outline

1. Overview of the Fashion Industry
2. Communications in Marketing
3. Merchandise Information for Fashion Merchandising

4. Personal Selling
5. Merchandising Operations
6. Sales Promotion
7. Employment Skills

Fashion Merchandising and Management Outline

1. Advanced Fashion Merchandise Information
2. Buying and Pricing
3. Sales Promotion
4. Economics
5. Management and Supervision

Introduction to Marketing Outline

1. Marketing in The Free Enterprise System
2. Exploring Marketing Occupations
3. Understanding One's Self
4. Communications in Marketing
5. Marketing Mathematics
6. Getting Ready for Employment

Marketing Outline

1. Introduction to Marketing Education
2. Job Seeking/Survival Skills
3. Economics in a Private Enterprise System
4. Selling
5. Operations
6. Sales Promotion

Marketing and Merchandising Outline

1. Leadership and Supervision
2. Merchandising
3. Planning the Promotional Mix

Marketing, Management, and Ownership Outline

1. Understand the Nature of Small Business
2. Assess Your Potential as an Entrepreneur
3. Locate Sources of Assistance for Planning and Operating a Small Business
4. Develop the Business Plan
5. Identify Government Rules, Regulations, and Laws Affecting Small Business
6. Choose the Type of Business Ownership
7. Plan for Financing the Business
8. Locate, Design, and Equip the Business
9. Develop Plan for Managing the Business
10. Manage Human Resources (Personnel)
11. Develop Buying Plans for Business
12. Plan Sales Promotion Efforts
13. Plan Credit and Collection Policies and Procedures
14. Plan Protection for the Business
15. Keep Business Records

Marketing, Merchandising, and Management Outline

1. Understand the Nature of Small Business
2. Assess Your Potential as an Entrepreneur
3. Locate Sources of Assistance for Planning and Operating a Small Business
4. Develop the Business Plan

5. Identify Government Rules, Regulations, and Laws Affecting Small Business

6. Choose the Type of Business Ownership

7. Plan for Financing the Business

Sales and Management Outline*

*NOTE: Competency listings and a test item bank are currently being developed for this course.

1. Business Organizations and Policies
2. Successful Management
3. Business Ethics
4. Effective Supervisory Skills
5. Marketing Research
6. Problem-Solving
7. Decision-Making

Sales Fundamentals Outline

1. Personal Preparation for Sales Occupations
2. Free Enterprise Concepts
3. Product Information
4. Salesmanship In Action
5. Marketing Strategies

HEALTH OCCUPATIONS EDUCATION

Program Description

The secondary, comprehensive Health Occupations Education program attempts to meet present and predicted needs for health workers within the diverse occupations identified in the health field. The program is designed to stimulate and motivate students' interests in the health services industry, to help prepare them for job opportunities as assistants on the health team, and to help prepare them for further education. Courses are designed to utilize skills training as a means of teaching a common core of concepts pertinent to a health career.

The competency-based curriculum for Health Occupations Education uses the cluster approach and encompasses both classroom and laboratory experiences which are aimed at developing a conceptual understanding of the following: personal, family, and community health maintenance and disease control; ethical and legal responsibilities; communication skills; and health sciences as related to the diagnosing, treatment, and rehabilitation of diseases/disorders. A multiplicity of simple to complex outcome competencies that represent commonalities within the scope of various health occupations are applied by students through clinical internships within cooperating health agencies.

Opportunities for leadership development and application of instructional competencies are provided by means of student participation in the North Carolina Association of Health Occupations Students of America (HOSA). This student organization is an integral component of the Health Occupations Education instructional program.

Learning Outcomes

As an integral part of the total secondary school curriculum, Health Occupations Education programs are designed to:

1. Enable students to select a career in the health care delivery system best suited to their individual needs, abilities, and career objectives.

2. Enable students to develop and apply basic care competencies that will prepare them with entry level skills for immediate employment as noncredentialed health assistants.

3. Enable students to develop and apply basic core competencies that will prepare them for pursuit of a health career through further education.

Scope and Sequence of Health Occupations Education

Health Occupations Education is comprised of a core of related units of study and instructional learning experiences designed to impart concepts required to support the health team. Competency-based instruction is organized to prepare students for occupational objectives concerned with assisting qualified health personnel in providing diagnostic, therapeutic, preventive, restorative, and rehabilitative services to consumers.

The chart that follows represents the scope and sequence for Health Occupations Education in the secondary curriculum. In a comprehensive Health Occupations Education program, Introduction to Health Occupations Education I is offered at grade 10, followed by Health Occupations Education I at grade 11, and Health Occupations Education II at grade 12. Prerequisites to Health Occupations Education I include Health Education and Biology.

SAMPLE SCOPE AND SEQUENCE FOR HEALTH OCCUPATIONS EDUCATION

Grade 10	Grade 11	*Grade 12
Introduction to Health Occupations Education (Y/S)	Health Occupations Education I (Y)	Health Occupations Education II (Y)
Prerequisites: None	Prerequisites: Biology and Health Education	Prerequisites: Health Occupations Education I

NOTE: Y = 1 year S = 1 semester

Courses are shown at first grade level offered, but may be offered at any succeeding grade level as well.

*Cooperative work experiences, internships, and/or production work activities are strongly encouraged for each student enrolled at this level.

Introduction to Health Occupations Education ideally is a semester long, one-hour, elective course designed to achieve the following: orient students enrolled in grade 10 to the organizational structure of the health industry and career ladders; create an awareness of employment equities that includes sex, race, and academic capabilities; and develop an understanding of on-the-job health and safety standards as a health team member. It is an introductory approach that affords the learning of basic concepts, especially those that deal with medical terminology, the diagnostic process, and health care/maintenance deliver systems. Although not a required prerequisite, it is strongly recommended that Introduction to Health Occupations Education be a part of the Health Occupations Education scope and sequence in each school to afford sophomore students the opportunity to determine further need for such preparation in relation to their potential career pursuits.

Health Occupations Educations I is designed as a year long, one-hour, elective course for students in grade 11. A more in-depth teaching/learning approach to a common core of health maintenance and health care competencies, health and safety standards, employment equities/opportunities, energy conservation, and practical life skills are presented through the application of some health assistant psychomotor skills. A major emphasis is placed on health sciences as they apply to the study of diagnosis and treatment of diseases/disorders, self-health care, and related health careers.

Twelfth grade students may enroll in Health Occupations Education I only if their occupational objective is complemented by a program or pattern of courses relevant to the following learning experiences: Business and Office Education students desirous of a medical secretary career, Marketing Education students desirous of a sales and marketing career as a pharmaceutical sales representative, Home Economics students aspiring to a career in hospital dietetics, or a student with academic preparation aspiring toward further education in pursuit of a health career. It is emphasized that successful completion of Health Education and Biology is required for any student before entering Health Occupations Education I.

Health Occupations Education II is a year long, two-hour block, elective course organized for those students in grade 12 who have completed Health Occupations Education I and who are interested in pursuing immediate employment and/or further education within a postsecondary institution.

The second semester students spend a majority of time on rotating clinical internships located in affiliating health agencies. While on clinical internships, no wages are paid. Supervision and evaluation are primarily the responsibilities of the Health Occupations Education teacher. Liability insurance for negligent acts must be obtained for these students prior to the clinical rotations.

It is especially important that those students interested in immediate employment complement their Health Occupations Education enrollment with business related offerings. For those who are interested in further education, additional science, math, and social studies offerings are needed.

Introduction to Health Occupations Education Outline

1. The Realm of Health

    a. Definition of health
    b. Concern for health
    c. Implications of health
    d. Influences on health
    e. Medical terminology

2. The Health Care Delivery System

    a. Big business
    b. Characteristics
        (1) history and development
        (2) health care services and agencies
        (3) sociologic aspects of health care
        (4) health services personnel
    c. Consumer protection

3. Health Maintenance

    a. The nature of disease
    b. Environmental health and safety

4. The Diagnostic Process

    a. Selecting a physician
    b. The medical examination
    c. The referral process

5. Major Health Problems

    a. Heart disease
    b. Cancer
    c. Mental illness
    d. Respiratory diseases
    e. Digestive diseases
    f. Drug abuse

6. A Career Decision

Health Occupations Education I Outline

1. Orientation to the Health Care Occupations and Agencies

    a. The nature of health care services
        (1) World Health Organization
        (2) implications of health
        (3) influences on health care, past and present
    b. Health agencies and purpose
        (1) international
        (2) national
        (3) state
        (4) community
    c. Health services personnel
        (1) members of health team
        (2) roles and responsibilities
    d. Personal and occupational philosophy
        (1) definition
        (2) application
    e. Practical applications for understanding medical terms

2. Interpersonal Communication and Human Relations

    a. Role of communication in human relations
        (1) elements
        (2) processes
        (3) types

- b. Interpersonal communication skills
    - (1) observation, perception, and transmission of information
    - (2) listening
    - (3) responses
    - (4) communication and the telephone
    - (5) following written and oral instructions
- c. Communication and the helping process
- d. Understanding human behavior
    - (1) definition
    - (2) characteristics
    - (3) influences
    - (4) basic needs
- e. Adjustments and patterns of behavior
    - (1) threats to adjustment
    - (2) defense mechanisms
    - (3) inner conflict, frustration, and problem-solving
    - (4) drug and alcohol abuse
- f. Patient behavior

3. Nutrition and Diet Therapy

- a. Nutrition
    - (1) definition
    - (2) purpose
    - (3) effects
    - (4) heredity and environment
- b. Nutrients
    - (1) classification
    - (2) function
    - (3) sources
    - (4) digestion and metabolism
    - (5) deficiencies
- c. Balanced diet
    - (1) interpretation
    - (2) composition
    - (3) amounts
    - (4) eating habits
- d. Nutritional therapy
    - (1) identification
    - (2) hospital diets
    - (3) psychological and physiological adjustments
- e. Health careers

4. Basic Sciences

- a. Microorganisms
    - (1) world beneath the microscope
    - (2) protists
    - (3) disease and disease-producing organisms

  (4) body defenses against diseases/disorders
  (5) methods of destruction
b. The general plan of the body
  (1) life processes
  (2) human body organization
  (3) human body plan
c. The skin--dermatology
  (1) structure
  (2) function
  (3) diseases/disorders
  (4) health careers
d. The skeletal system--osteology
  (1) structure
  (2) functions
  (3) diseases/disorders
  (4) health careers
e. The muscular system
  (1) structure
  (2) function
  (3) body mechanics
  (4) diseases/disorders
  (5) health careers
f. The respiratory system
  (1) structure
  (2) function
  (3) diseases/disorders
  (4) health careers
g. The circulatory system
  (1) the blood
  (2) the heart--cardiology
  (3) the blood vessels
  (4) health careers
h. The nervous system--neurology
  (1) general function
  (2) neurology
  (3) central nervous system
  (4) periphereal nervous system
  (5) autonomic nervous system
  (6) health careers
i. The sensory system
  (1) senses and sensory mechanisms
  (2) eye--opthalmology
  (3) ear
  (4) organs of special senses
  (5) symptoms of disorders of special senses
  (6) general senses
  (7) health careers
j. The digestive system
  (1) structure
  (2) function

        (3) diseases/disorders
        (4) health careers
    k. The urinary system--urology
        (1) structure
        (2) function
        (3) urine
        (4) diseases/disorders
        (5) health careers
    l. The endocrine system--endocrinology
        (1) structure
        (2) function
        (3) diseases/disorders
        (4) health careers
    m. The reproductive system
        (1) male
        (2) female
        (3) life before and during birth
        (4) human sexuality
        (5) diseases/disorders
        (6) health careers
    n. First aid emergency care
        (1) basic techniques of emergency care
        (2) common medical emergencies
        (3) safety
        (4) new trends in emergency care
        (5) health careers

Health Occupations Education II Outline

1. Being a Member of the Health Team

    a. Role of the assistant
        (1) health career ladders/specialities
        (2) duties
        (3) ethical practices
        (4) legal jurisprudence
    b. Professional traits of the assistant
        (1) personal appearance
        (2) attitude
    c. Health career employment opportunities
        (1) health manpower needs--local, state, and national
        (2) looking for a job
            (a) employment agencies
            (b) Employment Security Commission
            (c) personnel departments
            (d) advertising
        (3) evaluating employment opportunities
            (a) employee benefits
            (b) employee protection

- d. Job employment processes
  - (1) letter of inquiry
  - (2) personal data sheet/resume
  - (3) application form(s)
  - (4) references
  - (5) job interview(s)
  - (6) aptitude tests
  - (7) contracts
- e. Admissions processes (post-secondary education)
  - (1) letters of inquiry
  - (2) decision-making
  - (3) letter of application
  - (4) application forms
  - (5) aptitude tests
  - (6) student interviews
  - (7) financial assistance
    - (a) scholarships
    - (b) student aid
    - (c) grants
    - (d) awards
    - (e) loans
- f. Medical terminology
- g. Apothecaries'/metric systems

2. Communication Skills

- a. Listening with a purpose
- b. Observing with a purpose
- c. Empathy versus sympathy
- d. Anticipation of needs
- e. Communicative responses
  - (1) greeting patients, clients, visitors, and health team members
  - (2) informing patients, clients, visitors, and health team members--tests, diets
  - (3) receiving and placing telephone/intercom calls--emergency, appointments, information
  - (4) receiving and following directions
  - (5) interviewing with a purpose

3. Clerical Skills

- a. Clerical management
  - (1) handling the mail
  - (2) maintaining and labeling files
  - (3) scheduling appointments
  - (4) completing medical, health, and requisition forms
  - (5) maintaining inventories
  - (6) maintaining invoices, statements, and accounts
  - (7) transcribing/interpreting health team member's requests and orders

        - (8) preparing work schedules
        - (9) admitting a patient/client
    - b. Environmental management
        - (1) climate control
        - (2) cleanliness
            - (a) equipment
            - (b) furniture
            - (c) odors
        - (3) noise
        - (4) safety
            - (a) furniture
            - (b) equipment
            - (c) supplies
            - (d) radioactivity
            - (e) bedrails

4. Assistant Health Care Skills II

- a. Antimicrobial controls
    - (1) medical asepsis
    - (2) surgical asepsis
    - (3) trays/packs
    - (4) isolation technique
- b. Transporting measures
    - (1) wheelchair
    - (2) stretcher
    - (3) hydraulic lifts
    - (4) emergency measures
- c. Diagnostic measures
    - (1) physical assessment
    - (2) weight
    - (3) height
    - (4) visual acuity
    - (5) temperature
    - (6) pulse
    - (7) respiration
    - (8) blood pressure
    - (9) body alignment
    - (10) specimens, cultures, and smears
    - (11) computation of liquids and solids
- d. Therapeutic measures
    - (1) dressings/bandages
    - (2) heat and cold
    - (3) therapeutic agents
    - (4) hygiene
    - (5) therapeutic diets/supplements
- e. Rehabilitative measures
    - (1) exercises
    - (2) ambulation

HOME ECONOMICS EDUCATION

Program Description

The mission of Home Economics Education at the secondary level is to provide all students with opportunities to obtain knowledge and develop practical life skills and management skills for dual roles as homemakers and wage earners. The instructional program is designed to prepare students for occupations requiring skills in home economics to achieve their career objectives.

Consumer and homemaking courses are designed to prepare the individual or family member managing the home with the necessary knowledge, skills, and understanding to effectively and economically operate the household. Instruction centers on developing competencies in career information, child development, clothing and textiles, resource management, interpersonal relationships, food and nutrition, personal grooming, health and home care of the sick, housing, and home furnishings.

Occupational Home Economics courses are built upon the basic concept of a career ladder within a home economics related cluster of occupations. These courses are designed to prepare individuals for paid employment and advancing in one or more jobs within an occupational cluster. These occupations are related to child care, food services, clothing services, home furnishings, and human services.

Leadership opportunities in the home and the community, and opportunities for adding to homemaking skills, are available through the Future Homemakers of America/Home Economics Related Occupations (FHA/HERO) organization, which serves as the vocational economics student group in this field. Students participating in FHA/HERO activities are afforded opportunities to expand their range of interest, knowledge, and skills. These students also are given the opportunity of demonstrating the advantages of the home economics program to other students, their parents, faculty, and members of the community.

Learning Outcomes

For Consumer and Homemaking Programs, the major objectives are to help youths and adults:

1. Develop skills for managing their personal time, money, and other resources.

2. Prepare for homemaking roles.

3. Prepare for combining the dual roles of homemaker and wage earner.

4. Develop skills that will help them become better consumers of available goods and services.

5. Develop traits which contribute to employability.

6. Develop leadership through youth organization activities.

For Occupational Home Economics Programs, the major objectives are to enable interested students to:

1. Develop the knowledge, attitudes, and salable skills required for entering employment in an occupation based upon content areas in home economics.

2. Develop transferable skills applicable to a variety of jobs within an occupational cluster.

3. Become aware of opportunities for pursuing further study for advancement within an occupational cluster.

Scope and Sequence of Home Economics Education

The total scope and sequence of Home Economics Education includes varied Exploratory, Consumer and Homemaking, and Occupational offerings. Students may enter as early as grade 7 in exploratory courses, progress through introductory and advanced Consumer and Homemaking courses in grades 9-12, and/or through an occupational program in grades 11-12 in order to achieve personal and employment goals.

The determination of which sequence(s) of offerings to make available to students in a local education agency should be based upon a documented assessment of the needs and interests of students, current practices and issues facing individuals as consumers and homemakers, employment needs and resources of the community, program enrollment, and availability of resources--including qualified teaching staff and appropriate instructional facilities.

The following chart represents the scope and sequence of program offerings for a given situation in which a comprehensive Home Economics Education program is possible.

SAMPLE SCOPE AND SEQUENCE FOR HOME ECONOMICS EDUCATION

Grades 7,8	Grades 9	Grade 10	Grade 11	Grade 12
Exploring Home Economics (S)	Consumer Management Skills (S)		Adult Roles and Functions(S)	
			Family Life Education(Y)	
	Introductory Home Economics (Y)	Adv. Home Economics (Y)		*Applied Home Economics Occupations III(Y)
		Adv. Child Development(S)	*Child Care Services I-II(Y)	
		Adv. Clothing/Textiles (S)	*Clothing Services I-II (Y)	
		Adv. Foods/ Nutrition(S)	*Food Services I-II(Y)	
		Adv. Housing/ Home Furnishings (S)	*Home Interiors Services I-II (Y)	
		Adv. Interpersonal Relations (S)	*Human Services I-II (Y)	

NOTE: Y = 1 year S = 1 semester

Courses are shown at first grade level offered, but may be offered at any succeeding grade level as well.

*Cooperative work experiences, internships, and/or production work activities are strongly encouraged for each student enrolled at this level.

Illustrated in the chart are "semester courses" providing for three different levels of student involvement and "year long" courses providing for comprehensiveness in content and instructional opportunities for students in both consumer and homemaking and occupational courses.

Semester Courses

Exploratory Semester offering--includes specific competencies designed for the exploration of the content and careers related to Home Economics. It is dependent upon classroom work, library research, hands-on activities, community resources, and home/community-based observations. It is limited to grades 7 and 8.

Introductory Semester Offering--includes specific introductory competencies which focus on practical life skills. It is dependent upon classroom, laboratory, and home or community-based instructional experiences.

Advanced Semester Offering--includes specific advanced level competencies providing for the development of practical life skills in an area of specialty within Consumer/Homemaking education. It is dependent upon classroom and laboratory instructional experiences in sequence beyond the comprehensive, introductory level.

Year Long Courses

Comprehensive Consumer and Homemaking Offering--includes specific competencies in all the Home Economics content areas. It is dependent upon classroom, laboratory, and home-based instructional experiences for the development of practical life skills. Courses in both introductory and advanced home economics instruction are provided.

Occupational Home Economics Offering--includes specific competencies designed for the development of introductory and advanced concepts and skills in areas of specialty using a career ladder approach. It is dependent upon classroom, laboratory, and community-based experiences (cooperative placements and internships) for development of salable and/or preprofessional skills.

The prerequisite best suited for pursuing advanced consumer and homemaking courses is a comprehensive introductory course. Either Introductory Home Economics or Family Life Education fulfills this requirement. Since these two are Level I comprehensive laboratory courses, it is unnecessary for a student to enroll in both courses because of duplication of learning. The basic competencies are the same for both courses, and both are designed to be laboratory, experientially-based instructional programs which include all units of instruction in home economics.

Introductory Home Economics has been successfully included in the junior high school curriculum and is more appropriate for the interests, needs, and maturity levels of younger students. Although Family Life Education is also designed as an introductory level course, it is more appropriate for the needs of the more mature 11th and 12th grade student. Enrollment in either of the courses may be followed by enrollment in a variety of advanced or occupational home economics courses.

The one exception to this sequence is the combination of Adult Roles and Functions and Consumer Management Skills which may serve as the prerequisite to Advanced Child Development, Advanced Housing and Home Furnishings, and Advanced Interpersonal Relations ONLY. These courses are not designed to develop manipulative skills and do not adequately prepare the student for entry into any other advanced home economics or specialized advanced semester course(s) which depend upon a strong skill development base in several subject areas.

In addition to the semester offering, an LEA may offer one or more specialized introductory courses. Several possible local offerings that focus on a specialized area of Home Economics are Introductory Foods, Introductory Clothing, Introductory Housing, and Introductory Human Development.

Options for Occupations Programs

In a few local educational agencies throughout the State, "Career or Vocational Centers" have been created. Usually these are better arranged and more equipped to provide for more technical skill development than the regular vocational laboratory found in the majority of schools. Occupational home economics programs found in these "Centers," and in those laboratory settings which have been modified to exhibit actual occupational emphasis, are better equipped to provide realistic occupational experiences within the instructional setting. Those schools which are unable to provide a setting for realistic occupational skill development on campus may wish to rely upon the placement of students in actual work situations in local business and industry sites. Application of the cooperative work experience as an instructional strategy for development of occupational competence by students may also be used in sequence with a Level I and/or II on-campus occupational offering and selected consumer and homemaking sequence.

Adult Roles and Functions/Introduction Outline

1. Privileges and Responsibilities of Adulthood

    a. Types of roles
        (1) given roles
        (2) learned roles
        (3) chosen roles
        (4) shared roles
        (5) role behavior

b. Skills and processes essential to functioning as an adult
c. Discovering who you are
    (1) development of the self
    (2) influence of others
    (3) aspects of self-concept
d. Values held in today's society
e. Values and standards
    (1) development of values and standards
    (2) value of personal philosophy
    (3) value stability
f. Life styles in American society
    (1) components that make up a life style
    (2) types of family structure
    (3) choosing a style
    (4) advantages and disadvantages of your choice
g. Methods by which people communicate
    (1) verbal communication
    (2) nonverbal communication
    (3) role of personal appearance in communication
    (4) results of communication
h. Setting goals
    (1) planning
    (2) gathering information
    (3) setting priorities
    (4) putting plans into action
    (5) advantages and disadvantages
i. Decision-making process
j. Using the decision-making process

Adult Roles and Functions/Problems of Teenagers Outline

1. Problem Areas That Are Viewed by Society

2. Meeting Your Needs

    a. Physical needs
    b. Safety needs
    c. Love needs
    d. Esteem needs
    e. Self-actualization needs

3. Basics for Decision

    a. Ethics and codes
    b. Involvement in the welfare of others
    c. Diminished self-respect
    d. Balancing yourself and the world

4. Personal Decisions

   a. Use of drugs and alcohol
   b. Values and sex
   c. Peer pressure
   d. The double standard

Adult Roles and Functions/Family Relations Outline

1. Family Patterns

   a. Nuclear family
   b. Joint family
   c. Institutional families

2. Functions of Families

   a. Economic
   b. Protection
   c. Education
   d. Recreation
   e. Religious
   f. Procreation
   g. Affection

3. Making Personal Commitments

   a. Entering new social situations
   b. Establishing a household
   c. Selecting the right roommate
   d. Sharing and accepting responsibility
   e. Creating a positive attitude
   f. Establishing a relationship
   g. Choice and personal commitment

4. Milestones to Maturity

   a. Infancy
   b. Early childhood
   c. Later childhood
   d. The preteens
   e. Adolescence
   f. Young adulthood
   g. Adulthood

5. How Society Shapes Attitudes Toward Masculinity and Femininity

   a. Changing life styles
   b. Changes in society
   c. The changing female role

    d. The changing male role
    e. Change affects lifestyles
    f. Change in value system

6. Communicating with Others

    a. Levels of communication
    b. Destructive and constructive communication
    c. Cliche coversation
    d. Communicating your ideas
    e. Peak communication

7. Factors in Wise Mate Choice

    a. The factor of age
    b. Social background
    c. Similarity of attitudes and interest
    d. Similarity of occupational background
    e. Similarity of educational unit
    f. Similarity of level of living
    g. Similarity of ethnic group and race
    h. Similarity of religious faith

8. Meeting Individual and Family Crisis

    a. What makes a crisis
    b. How does a crisis affect roles of family members
    c. Facing and meeting crisis

Adult Roles and Functions/Home Management Outline

1. Resources Help You Reach Goals

    a. Human resources
    b. Nonhuman resources

2. Establish Your Priorities

    a. Goal setting
    b. Selecting and using resources wisely

3. Principles of Controlling

    a. Checking plan
    b. Researching information
    c. Adjusting plan
    d. Implementing plan

4. Influence of Routines on Management
    a. Improving time and energy
    b. Establishing routines
    c. Simplify work
    d. Dovetail tasks
    e. Alternate tasks

5. Division of Labor
    a. Tasks in the American family
    b. Factors to consider in dividing the work among family members

6. Goals Directing Your Decision

Adult Roles and Functions/Housing Outline

1. Your Housing Needs
    a. Physical needs
    b. Social needs
    c. Psychological needs

2. Influence of Family Interest and Activities on Housing
    a. Personal space
    b. Adequate living space
    c. Recreational activities

3. Housing Decisions According to Family Structures
    a. Founding family stage
    b. Expanding family stage
    c. Contracting family stage

4. Types of Housing
    a. Multi-family dwellings
    b. Single-family dwellings

5. Locating Housing

6. Choosing a Location
    a. Economic factors
    b. Physical factors
    c. Psychological factors
    d. Social factors

7. Checking Community Resources

   a. Health services
   b. Educational facilities
   c. Cultural and recreational resources
   d. Fire and police protection
   e. Environmental protection

8. Renting/Buying/Building

   a. Reasons for renting
   b. What you should know about renting
   c. Reasons for buying
   d. What you should know about buying
   e. Reasons for building

9. Assessing Housing

   a. Evaluating living space
   b. Location and layout
   c. Features and extras
   d. Facilities for leisure and recreation

10. Costs Associated with Renting, Buying, and Building a House

   a. Some legal terms used when buying a home
   b. Financing a house, kinds of mortgages, a Veterans Administration guaranteed loan
   c. What a house payment includes
   d. Renting

11. Legal Issues Which Apply to Housing

   a. Mortgage payments
   b. Amortization
   c. Borrower's Equity
   d. Variable rate mortgages
   e. Other costs

12. Restrictions Affecting Housing

   a. Zoning regulations
   b. Building codes

13. Energy Savers

   a. Insulation
   b. Heating and cooling a home
   c. Window coverings
   d. Hot water heater

- e. Refrigeration and freezers
- f. Cooling
- g. Lighting

14. Adjusting Housing for the Aged and Handicapped Person

    - a. Arrangement
    - b. Location

Adult Roles and Functions/Parenting Outline

1. Roles of the Parenting Figure

   - a. Roles of women and men in transition
   - b. Female/male role changes in American culture
   - c. Interchangeable roles

2. Planning for Parenthood

   - a. Analyzing the choice situation
   - b. Understanding your inherited traits
     - (1) the mechanics of heredity
     - (2) birth defects
     - (3) genetic counseling
   - c. Alternatives to natural parenthood
   - d. Adoption
   - e. Foster parenthood
   - f. Aids to family planning

3. Understanding Your Attitudes

   - a. Attitudes toward children
   - b. Attitudes toward family size
   - c. Social factors and their influence on parenting attitudes
   - d. Cultural factors and their influence on parenting attitudes

4. Family Planning

   - a. Planning and spacing children
   - b. Biological readiness for the first child
   - c. Economics readiness for the first child

5. Prenatal and Postnatal Period

   - a. The importance of prenatal care
   - b. Medical care during pregnancy
   - c. Adjusting to pregnancy
     - (1) physiological changes in pregnancy
     - (2) psychological changes during pregnancy
   - d. Sharing the experience

    e. Postnatal care
    f. Emotional adjustments of parenthood
    g. Psychological rewards of children
    h. Importance of the warm touch
    i. Critical periods in child development

6. Responsibilities of Parents and Children

    a. Caring for the baby
    b. Parent-child relationships
    c. The joy of parenthood

7. Readiness to Accept Parenthood

    a. Educating parents to a new lifestyle
    b. A step in growing up

8. Effectiveness of Discipline

    a. Discipline is necessary
    b. Sound rules to follow as a parent
    c. Discipline without punishment
    d. Methods of discipline
        (1) positive types of discipline
        (2) negative types of discipline

9. Methods for Gaining Mutual Respect

    a. Respect for individuality
    b. Satisfaction of Association
    c. Chances for advancement
    d. Parent-child relationships

10. Identifying Basic Needs of Children

11. Problems in Communicating with Parents

    a. Breakdown of communication
    b. The generation gap
    c. Positive and negative communications
    d. Parents needs and motives
    e. Liberty verses independence

12. Child abuse/neglect

    a. The abused child
    b. Physical violence
    c. Child abuse and neglect

13. Cause and Effects of Child Abuse and Neglect

    a. Handling conflict
    b. Conflict styles

14. Services and Legal Aid Available to the Abused and the Abuser

    a. Mental health
    b. Department of welfare
    c. Parents anonymous
    d. Legal aspects of child abuse and neglect

15. Special Parenting

    a. Adoption
    b. Safeguards to adoption
    c. Foster parenthood
    d. Step parents
    e. Advantages and disadvantages of special parenting

16. Single Parent Families

    a. Categories of families headed by one parent
    b. Reasons for single people assuming parenting roles

Adult Roles and Functions/Nutrition Outline

1. Why People Choose the Food They Eat

    a. Differences in food customs among various cultures
    b. Factors that influence your food choices
    c. New food trends
    d. Food choices versus social factors

2. How Much Should You Spend for Food

    a. Why do food prices change
    b. Your food selections determine budget
    c. Where will you shop
    d. Cost of food
    e. Your money's worth in foods

3. Variety of Eating Patterns

    a. Snacks
    b. Vegetarians
    c. Typical meal patterns
    d. Ethnic food varieties

4. Societal Attitudes Toward Body Size

   a. Attitude of society toward weight outside the normal range
   b. Stigma of obesity

5. Controlling Your Weight

   a. Identify the reason people have weight problems
   b. Understand why excess weight is a health hazard
   c. Decide on the best weight for you
   d. Lose weight if you are overweight
   e. Gain weight if you are underweight
   f. Influence of body structure on your weight
   g. Relationship between obesity in infants and children
      and adult obestiy

6. Relationship Between Eating Habits and Over- or Underweight

   a. Calories used for activities
   b. Why are people overweight
   c. Change your eating habits
   d. Why are people underweight
   e. How do you gain weight
   f. Keeping your weight right

7. Food Misinformation

   a. The myth of "Miracle" diets
   b. Problem with fad diets
   c. The five fads
      (1) diet candies
      (2) a high-fat diet
      (3) a high-protein diet
      (4) formula diet
      (5) the low-carbohydrate diet
   d. Ways in which nutrition misinformation can be costly or harmful

8. Sources of Valid and Less Valid Nutrition Information

   a. Creditability and research on which information was based
   b. Less valid sources of nutrition information
   c. Why are some of the sources so popular
   d. Realities of nutrition

9. Special Nutritional Needs

   a. Food needs of children
   b. Food needs of teenagers
   c. Food needs of adults
   d. Food needs of older adults

- e. Food needs of pregnant women
- f. Food needs of nursing women
- g. Compare the diet of a pregnant woman and that of a pregnant adolescent to determine if nutritional requirements are met

10. Development of Food Habits

- a. Feeding your young child
- b. Psychological aspects of food habits
- c. Influences on a child's eating habits
- d. How a parent can influence a child's eating habits

Adult Roles and Functions/Consumer Education Outline

1. Human Resources

- a. Physical and mental health
- b. Mental abilities
- c. Creating resources
- d. Personal qualities
- e. Skills
- f. Relationships
- g. Increasing resources

2. Relationship Between Human Resources and Life Style Options

- a. Changes in society
- b. Single living

3. Family Finances

- a. Allocating financial resources
- b. Needs versus wants
- c. Consumer buying in an affluent society
- d. A family spending plan
- e. Marriage success and money management
- f. Make plans for investing or saving income

4. The Use of Credit as a Tool in Financial Management

- a. Sources and types of credit
- b. Wise use of credit
- c. Consolidating debts
- d. Steps in establishing credit
- e. Warning about consumer credit
- f. Cost of credit

5. Banking Services Provided

    a. Checking
    b. Savings
    c. Loans
    d. Travelers checks
    e. Certified checks
    f. Automatic checks
    g. Automatic deposits
    h. Drafts
    i. "Weekend" service
    j. Overnight deposits
    k. Safety deposit box
    l. 24-hour banking

6. Types of Insurance for Individual/Family Protection

    a. Automobile
    b. Health Insurance
    c. Income insurance
    d. Life insurance
    e. Burial insurance
    f. Property and home insurance
    g. Policy as legal agreement
    h. Methods of paying insurance

7. Warranties, Guarantees, and Contracts

    a. Full warranty
    b. Limited warranty
    c. Warranty of merchantability
    d. Warranty of fitness
    e. Service contracts
    f. Essentials of a written contract
    g. Express and implied contract
    h. Defective agreements
    i. Remedies for breach of warranty

8. Consumer Rights and Responsibilities

    a. Consumer bill of rights
    b. Consumer responsibilities
    c. The consumer's rights in the marketplace

9. Advertising

    a. Advertising and the consumer
    b. Consumer information provided
    c. Advertising media
    d. Advertising and merchandising techniques

Adult Roles and Functions/Careers Outline

1. Work and Careers

   a. How changing roles affect work
   b. How changing roles affect leisure time activities
   c. How roles affect career goals and objectives
   d. Role conflict

2. Career Patterns of Adults

3. Major and Secondary Motivation for Working

   a. Reasons people work for pay
   b. Values of work
   c. Job promotion

4. Relationship Between Occupation and Lifestyle

   a. The clinging vine
   b. What is fair
   c. Succeeding in the world of work

5. Career Values and Goals

   a. Conflicts in values and goals
   b. Charting your values
   c. Weigh the pros and cons of your values and goals
   d. Work and your self-image

6. Factors in Selecting an Occupation

   a. Career ladders and lattices
   b. Personality and career choice
   c. Discovering job alternatives
   d. Job outlook
   e. Opportunities in the local job market with regional and national opportunities
   g. Education and/or training necessary for entry into occupation

7. Career Choices and Opportunities

8. Analyze Factors Related to Employability

   a. What employers want
   b. Qualifications of job applicants

9. Developing a Personal Plan for Becoming Employable

    a. Job retraining
    b. New ways of relating to others
    c. Adjusting to new work situation

10. Securing Employment

    a. Sources of information about job availability
    b. Tips on completing applications
    c. Techniques for interviewing for a job
    d. Preparing for a future job that does not exist
    e. A resource file

Advanced Home Economics Outline*

*NOTE: Included in this outline are the content outlines for the advanced semester courses: Advanced Child Development, Advanced Clothing and Textiles, Advanced Foods and Nutrition, Advanced Housing and Home Furnishings, and Advanced Interpersonal Relationships.

1. Career Orientation

    a. Personal and cultural attitudes toward work
        (1) cultural, social, and psychological values of work
        (2) influences on one's personal code of ethics
        (3) factors affecting the work ethic, personal productivity, economy
    b. Relation of self-development to job selection and success
        (1) factors influencing vocational goals and choices
        (2) services available for vocational planning
        (3) organization of resources to attain career goals
    c. Factors affecting women's decisions to combine marriage with employment
    d. Regulations governing employment
        (1) federal and state legislation governing employment
        (2) procedures involved in seeking and getting a job
    e. Employment opportunities using home economics knowledge and skills
        (1) home economics careers for men and women
        (2) use of skills developed in the study of growth and guidance of children
        (3) career ladder opportunities in the apparel, textiles, and clothing services industries
        (4) career opportunities in foods and nutrition
        (5) employment opportunities using skills in housing and home furnishings

2. Child Development

    a. Readiness for parental responsibilities
    b. Adjustments in parenthood

- c. Prenatal development and care of the mother and infant
- d. Development, care, and guidance of infants and children
- e. Community services available for care of mother and infant

3. Clothing and Textile

    - a. Management of clothing for the family
    - b. Selection and care of textile products
    - c. Coordination of patterns and fabrics for the individual
    - d. Creativity in clothing construction

4. Consumer Education

    - a. Factors influencing use of family resources
    - b. Relation of stages of family cycle to demands on family resources
    - c. Types of resources available to the consumer
    - d. Effects of values and goals on consumer decisions
    - e. Influence of advertising and merchandising techniques on consumers

5. Sources, Costs, and Use of Consumer Credit

    - a. Sources and costs of consumer credit
    - b. Appropriate uses of consumer credit
    - c. Effect of credit rating on consumer activities

6. Management of Family Resources

    - a. Factors contributing to financial security for individuals and families
    - b. Factors affecting consumer decisions for individuals having multiple roles
    - c. Establishing priorities in the management of financial resources
    - d. Development, use, and evaluation of a personal financial plan
    - e. Consumer practices for effective use of resources in meeting basic needs for food, clothing, shelter, transportation, child care, education, and recreation

7. Information and Protection Available to Consumers from Institutions and Agencies

    - a. Responsibilities and rights of consumers
    - b. Types of consumer information, protection, and services
    - c. Sources of consumer information, protection, and services
    - d. Legal aspects of consumer protection

8. Family Relationships

    - a. Preparation for mature roles
        - (1) personal roles and responsibilities
        - (2) application of decision-making skills in solving personal problems

        (3) maturity, self-development, and self-actualization
        (4) changing male/female roles and responsibilities in contemporary society
    b. The individual and the family
    c. The young adult in society

9. Foods and Nutrition

    a. Technology and consumer food choices
    b. Use of the food dollar
    c. Advanced food preparation

10. Health and Home Care of the Sick

    a. Factors affecting individual and family health
    b. Home care of the sick and injured

11. Housing and Home Furnishings

12. Selection of Housing to Meet Individual and Family Needs

    a. Factors affecting differences in housing needs of individuals and families
    b. Factors which may limit decisions in housing to meet needs
    c. Criteria for evaluating suitability of housing alternatives in terms of individual/family needs
    d. Guidelines for evaluating exterior construction features of housing
    e. Guidelines for evaluating housing interiors in terms of comfort, convenience, and aesthetic value
    f. Financial decisions involved in securing and maintaining suitable housing
    g. Financial, legal, insurance, and other considerations in renting, building, renovating, or buying suitable housing

13. Selection and Use of Home Furnishings

    a. Changes in society and technology which influence housing design
    b. Alternatives in home furnishings, equipment, and appliances
    c. Use of design elements and principles in decorating personal living spaces
    d. Selection, purchase, use, and care of selected home furnishings and accessories
    e. Techniques for improvising, constructing, and/or renovating selected items of home furnishings to extend financial resources

14. Organization in the Management of the Home
    a. Work simplification in the performance of selected household responsibilities
    b. Cooperative practices contributing to efficient and satisfying management of the home and its surroundings
    c. Practices which result in conservation of natural resources in and around the home

Applied Home Economics Occupations III Outline

1. Purpose of Home Economics Cooperative Education
    a. Definition
    b. Career preparation
    c. Terminology

2. Benefits
    a. To student
    b. To business/industry
    c. To school

3. Career Opportunities
    a. Care and guidance of children
    b. Clothing, production, and services
    c. Food management, production, and services
    d. Home furnishings, equipment, and services
    e. Institutional and home management

4. Occupational Terminology
    a. Technical terms/occupations
    b. Technical terms/home economics related occupations

5. FHA/HERO
    a. Components
    b. Participation

6. Cooperative Training
    a. Criteria
    b. Other cooperative programs
    c. Work programs

7. Forms and Records in HECE

   a. Pre-enrollment forms and records
   b. Forms for evaluation and follow-up

8. Responsibilities

   a. HECE
   b. School
   c. Business/industry

9. Training Agreement and Training Plan

   a. Differences
   b. Developing and evaluating accomplishments

10. Career Decision-Making

   a. Interest inventory
   b. Career choices based on interest inventory

11. Personal Qualifications for Employment

   a. Work competencies for employability
   b. Work competencies desirable for employability
   c. Work adjustment problems

12. Communication Skills

   a. Needed for the job
   b. Verbal communication needed for home economics occupations
   c. Barriers to good communication
   d. Steps
   e. Gestures which convey emotions
   f. Differences in skills: listening, face-to-face, and telephone
   g. Telephone skills
   h. Writing skills
   i. Business report

13. Grooming/Personal Health Practices

   a. Maintaining home economics related occupations
   b. Requirements that affect productivity
   c. Grooming practices that affect productivity

14. Human Relation Skills

   a. Affecting job performance
   b. Contributing to positive employee relationship

15. Math Skills/Home Economics Occupation

    a. Succeeding on job
    b. Math/related forms
    c. Metric conversion terms

16. Procedures for Obtaining Job

    a. Sources of information
    b. Job description

17. Forms for Employment

    a. Importance
    b. Resume
    c. Completion

18. Job Interview Skills

    a. Techniques
    b. Decision-making skills

19. Success on the Job

    a. On-the-job performance
    b. Tasks performed on-the-job
    c. Physical demands
    d. Desirable worker characteristics
    e. Policies, protocol, procedures

20. Ethical Practices

    a. Work ethics
    b. Supervisor's role
    c. Employment

21. Legal Aspects of Employment

    a. Wages and labor regulations
    b. Labor laws
    c. Organized labor
    d. Discrimination
    e. Wage law regulations
    f. Wage statements/reports
    g. Legislation

22. Fringe Benefits

23. Legal Documents

    a. Certificates for employment
    b. Essential elements
    c. Legalities of a contract

24. Job Mobility

    a. Positive and negative reasons
    b. Indicators for advancement
    c. Reason for changing
    d. Business/industry reasons for dismissing

25. Terminating Employment

    a. Procedure
    b. Letter of resignation

26. Multi-Role Responsibilities

    a. Roles of adults
    b. Role changes in different life stages

27. Techniques in Assuming Multi-Roles

    a. Decision-making process
    b. Management techniques
    c. Conflicts
    d. Personal resources
    e. Community resources

28. Human Skills/Multi-Roles

    a. Human relations
    b. Conflicts

29. Safety Practices

    a. Related to home economics
    b. Attitudes
    c. Potential occupation hazards
    d. Maintenance procedure

30. Sanitation Practices

    a. Home economics related occupations
    b. Difference between cleanliness and sanitation
    c. Sanitation codes

31. Occupational Safety and Health Act

    a. OSHA
    b. Employer/employee responsibilities
    c. Rules/regulations

32. Safety Practices/Sanitation Rules

    a. Safety practices
    b. Importance

33. First Aid Skills

    a. Procedures
    b. Supplies/equipment
    c. Emergency procedures

34. Licensing Requirements

    a. List
    b. Compare in different areas

35. Private Enterprise

    a. Define
    b. Characteristics
    c. Governmental control

36. Business Trends

    a. Describe
    b. Effects on productivity

37. Social Security

    a. Describe
    b. Reasons for
    c. Where to find information

38. Tax System

    a. Benefits
    b. Income tax forms/records

39. Insurance

    a. Define terms
    b. Types
    c. Coverage

40. Credit

    a. Available credit sources
    b. Advantages and disadvantages
    c. Factors affecting credit rating

41. Banking

    a. Terms
    b. Services
    c. Checks/checking accounts

42. Career Goals

    a. Records to evaluate
    b. Skills
    c. Requirements/Qualifications

43. Future Career Plans

    a. Identify alternatives
    b. Source of aid

44. Self-Employment/Entrepreneurship

    a. Define terms
    b. Advantages and disadvantages
    c. Franchises
    d. Factors in starting

Child Care Services I and II Outline

1. Basic needs of children

    a. Physical needs
    b. Emotional needs
    c. Intellectual needs
    d. Social needs

2. Motor Development

    a. Individual rate of development
    b. Predictable pattern at each stage of development
    c. General pattern of growth of large to small motor skills

3. Motor Coordination

    a. Large and small motor control
    b. Relationship of self-concept to motor coordination
    c. Motor coordination develops at individual rate
    d. Learning and motor control based on physical maturation

4. Intellectual Development

    a. Individual rate of development
    b. Factors influencing intellectual development

5. Stages of development (Piaget)

6. Formal Operations

    a. Developmental tasks (Havighurst)
    b. Social/emotional development
    c. Behavior and guidance principles for children
        (1) types of behavior
        (2) observation and evaluation of behavior
        (3) goals of guidance
        (4) principles of discipline
    d. Nutritious food for infants and children
    e. Diets appropriate for infants and children
    f. Food likes and dislikes at each age level
    g. Planning and serving balanced meals with consideration
    h. Role of play in development of children
    i. Importance of play in child development
    j. Management of learning experiences for infants and children
        (1) stimulation activities for infants
        (2) room arrangement of centers for young children
        (3) daily schedule with attention to indoor/outdoor play
    k. Selecting, using, and caring for audio-visual aids, equipment, and preparation of other instructional materials
    l. Special needs of infants and children
    m. Preschooler
    n. Characteristic and special needs of exceptional children
    o. Child care related agencies and organizations
    p. Effective communication skills
    q. Personal qualifications for employment
        (1) desirable personality
        (2) job requirements related to personal qualifications
    r. Ethical practices for child care employees
    s. Grooming and hygiene principles
    t. Employee regulations, roles and responsibilities
    u. Self-employment opportunities in child care services
    v. Sources of information on employment opportunities in child care programs
    w. Employment opportunities
    x. Knowledge of applying for a job
    y. Personal capacities and responsibilities of the child care worker
    z. Relationship of aide to total center
    aa. Factors which promote a safe environment for the child
    bb. Injuries/illness
    cc. General safety rules for center

dd. Emergency situations
ee. Good nutrition habits
ff. Health practices
gg. Safety practices
hh. Equipment and toy safety check
ii. Safety requirements for licensed child care facilities
jj. Importance of teacher/child ratio for different age groups and activities

Clothing Services I and II Outline

1. Preparation for the World of Work

    a. Job descriptions for various types of employment
    b. Local, state, and regional opportunities for jobs
    c. Self-employment opportunities
    d. Advantages of clothing services positions
    e. Job requirements related to
        (1) physical qualities
        (2) job-related skills
        (3) speed and accuracy
        (4) technical knowledge
    f. Attitudes and values related to job success
    g. Importance of following job policies, protocol, and procedures for specific business operations
    h. Job ethics
    i. Desirable employee traits
    j. Undesirable job-related behaviors
    k. Reasons for losing jobs such as
        (1) lack of technical knowledge
        (2) economic conditions
        (3) poor human relations skills
        (4) lack of dedication to work
    l. Importance of working harmoniously with others
    m. Communication skills
    n. Factors contributing to positive employee/employer, employee/customer relationships
    o. Relationship of human relation skills to job success
    p. Legal aspects of employment
    q. Getting a job
    r. Steps in the decision-making process
    s. Factors to consider in assessing job offer
    t. Skills and knowledge needed for self-employment in clothing industry

2. Equipment and Supplies

    a. Kinds of equipment available
    b. Use and care of large equipment available
    c. Cost of equipment and supplies
    d. Using equipment

e. Management of the work area
f. Safety precautions in use of power sewing machine
g. Importance of good posture
h. Correct method for adjusting chair heights
i. Safe lifting techniques
j. Safe handling of equipment

3. Skills for Custom Clothing Construction

  a. Selection of patterns in relationship to size, shape, and intended use
  b. Measurement areas for determining selection of men's, women's and children's commerical patterns
  c. Procedure for selection of appropriate figure type and pattern size
  d. Guidelines and steps for pattern alterations
  e. Procedures for specific alterations of patterns such as lengthening, shortening, enlarging, and reducing size
  f. Combination of necklines, collars, sleeves, and other features from two or more patterns
  g. Use of two pattern sizes to provide proper fit
  h. Amount of fabric needed for a variety of fabrics
  i. Amount of interfacing and specific notions needed for a variety of patterns and fabrics
  j. Pattern terms and symbols on the envelope, pattern pieces, and guide sheet
  k. Types of interfacings and linings, fabric, lining, interfacing, and notions appropriate for variety of patterns
  l. Identification of grainline of fabric
  m. Preparation of fabric for cutting pattern layout
  n. Layout of special fabrics
  o. Selection of pattern pieces and cutting layout for garment view desired
  p. Guidelines for cutting pattern pieces with minimum amount of fabric
  q. Various procedures for marking and why
  r. Special stitches available on a variety of machines
  s. Use of all attachments available such as
    (1) buttonholer
    (2) zipper foot
    (3) cording foot
  t. Characteristics of quality machine stitching on various fabrics
  u. Procedures for a variety of hand stitches such as
    (1) slip basting
    (2) diagonal basting
    (3) hem stitches
    (4) buttonhole stitch
    (5) overcasting
  v. Procedures for attaching
    (1) hook and eye
    (2) snap

        - (3) buttons
        - (4) thread loops
    - w. Purposes of temporary and permanent stitches
    - x. Selection of stitches in relation to purpose and type of fabric
    - y. Techniques for curved, corner seams
    - z. Skill construction of more advanced procedures such as
        - (1) seam finishes
        - (2) closures
        - (3) collars
        - (4) sleeves
        - (5) hems
        - (6) bound buttonholes
    - aa. Construction techniques related to
        - (1) characteristics of fabrics
        - (2) fabric construction
        - (3) fabric finishes
    - bb. Procedures for working with specialty fabrics
    - cc. Identification of purposes and construction procedures for
        - (1) linings
        - (2) underlinings
        - (3) interfacings
    - dd. Factors which determine fit in a garment
    - ee. Causes for poor fit in a garment
    - ff. Procedures for insuring proper fit
    - gg. Differences between dressmaker and custom tailoring methods
    - hh. Tailoring techniques
    - ii. Characteristics of a quality garment
    - jj. Importance of quality workmanship
    - kk. Relation of heat, moisture, and pressure to pressing of various fabrics
    - ll. Techniques for
        - (1) grain line
        - (2) pressing darts, seams, sleeve, hem
        - (3) pressing out creases
    - mm. Characteristics of a well-pressed garment
    - nn. Organization of work time and personal time for greater efficiency
    - oo. Organization of supplies and equipment
    - pp. Characteristics of a well-arranged sewing area
    - qq. Factors which affect time needed to complete a specific garment
    - rr. Appropriate procedures for ripping seams in various fabrics considering time and type of fabrics

4. Skills for Alteration and Repair

    - a. Factors affecting alteration decisions
    - b. Characteristics of properly fitted garments
    - c. Identification of problems requiring alterations
    - d. Alteration procedures for use in special areas
    - e. Special fitting problems according to individual differences
    - f. Steps in fitting, marking, and recording information for alterations
    - g. Techniques for men's alterations

h. Acceptable standards for alterations
i. Techniques for women's alterations
j. Acceptable standards for alterations
k. Techniques for children's alterations
    (1) skirt/pant length
    (2) patches/mending
    (3) recycling
    (4) growth features
l. Personal safety
m. Machine safety
n. Procedures for efficient use of time
o. Procedures for determination of alteration costs and delivery date
p. Customer/employee relations
q. Alteration ticket information

5. Production in a Commercial Setting

a. Descriptions of positions in apparel production
b. Definitions of various terms
c. Steps in production process in garment-making
d. Specialized individual operations for various kinds of employment
e. Procedures for threading and using
f. Techniques for inserting labels, loops, tabs
g. Importance of increasing speed in machine operation
h. Procedure for conducting a time-motion study
i. Stitching of two plies (or pieces) with different shapes such as sleeve and armhole
j. Use of attachments which roll, fold, insert, or guide materials
k. Machine adjustments necessary when using attachments
l. Types of finish stitching
m. Steps in making a garment/project using assembly line techniques
n. General steps in a operator's performance of a specific task within the assembly line procedure
o. Standards for quality work
p. Correction of mistakes by individual operators
q. Necessary repairs to be made
r. Definitions of tolerances allowed in garments
s. Factors affecting classification of garments
t. Consideration of cost and time in determining repairs to be made
u. Procedures for repairing defective garments
v. Reasons for production control
w. Factors affecting production
x. Information on tickets attached to bundles
y. Incentives
z. Types of pay scales
aa. Calculation of everyday math problems that an operator may encounter

6. Skill in Use of Equipment for Specialized Tasks

- a. Types of decorative finishes
- b. Criteria for selection
- c. Three-letter monogram
- d. Machine applique
- e. Decorative trims
- f. Decorative hand and machine stitches
- g. Criteria for evaluating decorative finish
- h. Definition of recycling
- i. Factors affecting decision to recycle garments
- j. Procedures for replacing collars and cuffs
- k. Ideas for recycling
- l. Tasks descriptions in laundry-dry cleaning businesses
- m. Use of laundry aids in spot and stain removal
- n. Steps in stain and spot removal
- o. Functions of accessories
- p. Construction processes for decorative items
  - (1) cushions
  - (2) pillows
  - (3) bolsters
  - (4) dressing tables
  - (5) pillow shams
  - (6) placemats
  - (7) tablecloths and napkins
  - (8) table runners
- q. Criteria for evaluation of accessory items
- r. Styles of bedspreads
- s. Types of bedspreads
- t. Measurements needed for various styles and types of spreads
- u. Importance of accuracy of measurements
- v. Selection of appropriate fabrics and trims for designated styles
- w. Procedure for estimating yardage and deciding on decorative detail
- x. Procedures for bedspread construction
- y. Criteria for evaluation of bedspreads
- z. Windows
- aa. Types of shades, shutters, and blinds
- bb. Appropriate use of various types of shades, shutters, and blinds
- cc. Types of window treatments
- dd. Types of over-treatments
- ee. Decorative window treatments
- ff. Factors to consider in selection of window treatments
- gg. Factors affecting selection of fabrics
- hh. Procedures for drapery construction
- ii. Types of hardware and mountings
- jj. Equipment and supplies necessary to install draperies or curtains
- kk. Selection and installation of hardware
- ll. Criteria for draperies of quality construction

7. Small Business Management

   a. Information needed for planning a small business
   b. Financial information needs
   c. Developing a basic business plan
   d. Getting started in business
   e. Regulations and laws affecting the area of business selected
   f. Types of records needed for business operation
   g. Personal relations skills
   h. Sources of information regarding beginning and operating a small business
   i. Types of services provided by agencies/organizations regarding business management

Consumer Management Skills Outline

1. Economic System

   a. Types of economic system
   b. Components of an economic system
   c. Major choices determined by economy
   d. The American economic system
   e. Influences on the economy
   f. Effects of influences on the economy
   g. Economic roles of the consumer as a teenager
   h. Consumer as a taxpayer
   i. Economic role of government
   j. Economic role of the producer
   k. Consumer legislation
   l. Legislative actions
      (1) controls
      (2) benefits
      (3) protects
      (4) support from consumers
   m. State and national government agencies providing consumer protection
   n. Examples of government regulations
   o. Values and goals
   p. Decision-making
   q. Factors affecting decision-making
   r. Consumer situations
   s. Enforcement of consumer legislation

2. Consumer Planning and Decision-Making

   a. Economic conditions
   b. Influence on decision-making
   c. Types of resources
   d. Characteristics of resources

  - e. Family life cycle
  - f. Characteristics during each stage of family cycle
  - g. Financial needs during each stage of family cycle
  - h. Achievement of goals through resources

3. Management of Homemaking Responsibilities

   a. Changing roles of the homemaker
   b. Value of management skills
   c. Value of management process to homemaking responsibilities
   d. Factors of management process
   e. Energy conservation
   f. Demands of time
   g. Availability of time
   h. Household responsibilities
   i. Criteria for supplies
   j. Criteria for selection of small equipment
   k. Strategies for financial security
   l. Influences on spending
   m. Influences on budgeting
   n. Processes of budgeting

4. Financial Protection for the Consumer

   a. Types of institutions
   b. Reasons for using a checking account
   c. Sources of protection
   d. Services provided
   e. Filling out bank forms
   f. Factors affecting plans for savings and investments
   g. Reasons for savings
   h. Choosing a savings method
   i. Methods of savings
   j. Basis for computing interest on savings
   k. Types of investments
   l. Sources of information for investors
   m. Factors affecting need for insurance
   n. Influences on cost of insurance

5. Types of Insurance

   a. Automobile
   b. Health Insurance
   c. Income insurance
   d. Life insurance
   e. Burial insurance
   f. Property and home insurance
   g. Policy as legal agreement
   h. Methods of paying insurance
   i. Social security benefits
   j. Supplemental plans

6. Use of Consumer Credit

    a. Basic types of credit
    b. Use of credit
    c. Use of cash
    d. Sources of consumer credit
    e. Types of sales credit
    f. Advantages of credit
    g. Disadvantages of credit
    h. Cost of credit
    i. Economic factors influencing credit
    j. Credit application
    k. Credit and the law
    l. Credit rating
    m. Credit rating agencies
    n. Qualifications for obtaining credit
    o. Using credit wisely

7. Consumer Rights and Responsibilities

8. Consumers in the Market Place

    a. Influence on consumer choices
    b. General rules of buying
    c. General buying practices
    d. Securing product information
    e. Shopping behaviors
    f. Advertising and the consumer
    g. Consumer information provided through advertisements
    h. Advertising media
    i. Advertising and merchandising techniques
    j. Techniques
    k. Deceptive practices
    l. Consumer appeal of deceptive practices
    m. Effects of deceptive practices

9. Consumer Services Available

    a. Types of consumer information
    b. Manufacturers as sources of consumer information
    c. Types of consumer information available from manufacturers
    d. Private agencies
    e. Services to consumers

10. Career Opportunities

    a. Personal aptitude
    b. Occupational Outlook Handbook
    c. Other job information
    d. Career opportunities

- e. Consumption patterns
- f. Influences on consumption patterns of families
- g. Relationship of career choice to consumption patterns
- h. Resources available for postsecondary education/training
- i. Career ladder
- j. Career lattice

Exploratory/Introductory Home Economics Outline*

*NOTE: Included in this outline are the content outlines for Exploring Home Economics, Introductory Home Economics, and Family Life Education.

1. Wardrobe for Self and Family

    - a. Selection
    - b. Care
    - c. Coordination
    - d. Pattern coordination
    - e. Purchasing clothing
    - f. Purchasing accessories

2. Clothing Construction

    - a. Appropriate pattern
    - b. Appropriate fabrics
    - c. Appropriate notions
    - d. Sewing safety
    - e. Basic technique
    - f. Evaluation

3. Personal Resources

    - a. Available resources

4. Use of Resources

    - a. Factors that influence
    - b. Basis for decisions
    - c. Setting priorities
    - d. Analyzing financial plans

5. Consumer Decisions

    - a. Personal values, needs, and goals
    - b. Social pressures
    - c. Available sources of credit
    - d. Cost of consumer credit
    - e. Consumer information
    - f. Relationship of consumer rights to responsibility
    - g. Effects of consumer legislation

6. Resources
    - a. Financial security
    - b. Evaluating consumer personal goals
    - c. Management

7. Responsibilities of Parenting
    - a. Goals
    - b. Adjustment
    - c. Basic needs of infants
    - d. Growth and development of children
    - e. Parent child relationships

8. Maturity Growth
    - a. Individual development
    - b. Responsibilities during life cycle
    - c. Factors affecting life styles
    - d. Influence of physical, mental, and personal growth

9. Preparation for Parenthood
    - a. Myths and realities
    - b. Family planning
    - c. Parental responsibilities
    - d. Community resources
    - e. Heredity and environmental influences

10. The Family
    - a. Universality
    - b. Functions
    - c. Stages in life cycle
    - d. Issues

11. Patterns of Adult Living
    - a. Personal philosophy
    - b. Code of ethics
    - c. Male/female roles
    - d. Decisions relating to marriage
    - e. Successful marriage

12. Community Services

13. Family Food Meals
    - a. Psychological, social, and physiological functions
    - b. Nutritious meals

14. Managing Family Food Dollar

    a. Consumer buying
    b. Selection and conservation of food

15. Resources for Meal Preparation

    a. Equipment
    b. Time, energy, and money
    c. Planning, preparing, and serving foods
    d. Meal services and manners

16. Occupational Goals and Values

    a. Cultural, social, and psychological work
    b. Factors influencing vocational goals/choices
    c. Services for vocational planning
    d. Resources for career goals

17. Working Women

18. Opportunities in Home Economics

19. Entering Employment

20. Personal Grooming

    a. Bases
    b. Characteristics
    c. Selected techniques
    d. Selection and cost of supplies

21. Housing/Family development

22. Changing Family Needs

    a. Influences on housing choices
    b. Guidelines for selecting houses
    c. Financial decisions
    d. Legal Aspects
    e. Community sources

23. Furnishings/Equipment

    a. Selecting
    b. Arrangement
    c. Organization
    d. Management factors

24. Furniture, Equipment, and Accessories

    a. Selecting household textiles
    b. Organizing household storage
    c. Care

25. Safety Hazards

Food Services I and II Outline

1. General Competencies for Employment

    a. Overview of food service industry
    b. Various types of food service establishments
    c. Food service occupations and training requirements
    d. Multi-roles of food service employee
    e. Employee obligations
    f. Employment policies, laws, and regulations for food service
    g. Sanitation regulations and food service establishments
    h. Importance of the Occupational Safety and Health Act to the worker
    i. Human relations in serving the public
    j. Attitudes
    k. Employment ethics
    l. Personal characteristics
    m. Job applications

2. Safety and Sanitation

    a. Importance of sanitation and safety in food service
    b. Foodborne disease
    c. Preventing accidents and injuries
    d. First aid procedures
    e. Ware washing
    f. Housekeeping procedures
    g. Prevention of food spoilage
    h. Control of spoilage
    i. Food preservation

3. Nutrition and Menu Planning

    a. Basics of nutrition
    b. Fads and fallacies
    c. Menu planning
    d. Relation of foods to type of food service establishment

4. Selection, Use, and Maintenance of Equipment

    a. Equipment
    b. Use, care, and maintenance of equipment

5. Skills Appropriate for Food Preparation

    a. Basic procedures in food preparation
    b. Benefits of using work schedules
    c. Work simplification
    d. Work simplification guide
    e. Purpose of work stations in various establishments
    f. Work stations and related job tasks
    g. Organization of work stations in various establishments
    h. Tasks needed in conducting food service operation
    i. Planning foods for catered functions

6. Skills in Serving Customers

    a. Practices for developing positive customer relations
    b. Value of repeat trade to business success
    c. Types of food service units
    d. Types of service for various food establishments
    e. Techniques of serving customers at table or counter
    f. Decisions between rental or purchase of selected services
    g. Types of quantity purchase of food
    h. Considerations in food purchase
    i. Considerations in purchase of supplies/equipment

7. Small Business Management

    a. Information needed for planning a small business
    b. Financial information needs
    c. Developing a basic business plan
    d. Getting started in business
    e. Legal regulations and laws affecting the food service business
    f. Types of records needed for business operation
    g. Personal relations skills in management
    h. Sources of information regarding beginning and operating a small business
    i. Types of services provided by agencies/organizations regarding business management

Home Interiors Services I and II Outline

1. Employment Opportunities in Home Interior Services

    a. Career opportunities available in home interior services
    b. Entry-level jobs which exists in home interiors related occupations

2. Personal Characteristics for Becoming Employable

   a. Positive work habits
   b. Factors of personnel behavior
      (1) attitudes
      (2) policies
      (3) procedures
      (4) ethics
   c. Personal grooming appropriate for a job interview and different job situations
   d. Skills in interpersonal relationships

3. Process to Follow When Seeking a Job

   a. Employment Security Commission
   b. Survey of local newspapers, agencies
   c. Guidance counselor
   d. Variety of forms related to getting or leaving a job

4. Techniques for Applying for a Job

   a. Contacting perspective employer
      (1) letter of application including list of references
      (2) resumes
   b. Application form
   c. Interview
      (1) techniques
      (2) appearance
      (3) conduct
   d. Follow-up on interview
   e. Telephone
   f. Steps in decision-making factors to be considered in analyzing job offers

5. Selection of Appropriate Equipment, Tools, and Supplies for Home Interiors Projects

   a. Guidelines for selection of
      (1) sewing equipment
      (2) tools and supplies
   b. Uses of sewing equipment
   c. Appropriate tools, equipment, and supplies for constructing a particular task or project
   d. Basic and specialized types of sewing machines
   e. Principle parts common to most power sewing machines
   f. Safety practices to observe during job performance

6. Use and Maintain Supplies, Tools, Equipment, and Work Area Safely

    a. Maintain power equipment safely
        (1) sewing machines
        (2) sander
        (3) vacuum
        (4) drill
        (5) button maker
    b. Proper storage and handling of supplies
    c. Recommended procedures for cleaning and maintaining work areas
    d. Updating information about supplies, tools, and equipment

7. Applying Elements and Principles of Design to Create Functional and Decorative Beauty

    a. Define the elements and principles of design
    b. Relationships between elements of design and principles of design
    c. Elements and principles used in various components of home interiors
    d. Elements and principles of design to create usually pleasing home interiors
    e. Correct use of the design terms called functional and decorative design
    f. Definition of "dimension of color" and related terms
    g. Suitability of different textures and their intended use

8. Understanding the Use of Color in Home Interiors

    a. Definition of terminology used to explain different aspects of color
    b. Standard color harmonies typical in home decor
    c. Color harmonies used to create a color scheme
    d. Color may be used to produce or create economical, pschological, optical, and physical benefits
    e. How color in accessories can be used to create a well-designed room
    f. How the principles of design apply to the use of color as well as to the use of line, area, and shape

9. Identify Characteristics of Textile Products in Home Interiors

    a. Terms related to textile products
    b. Classification of fibers and their characteristics
    c. Four types of construction used to make fabric
    d. Commonly used decorative fabrics
    e. Some of the major finishing processes (purpose of each)
    f. Serviceability of a fabric
        (1) by its content
        (2) construction and finishes

10. Interpret Textile Information When Selecting and Using Textiles for Projects

    a. Justify selection of textiles for suitability and durability for a given furniture style
    b. Coordination of color and texture of textiles used for window treatments
        (1) upholstery fabric
        (2) accessories with the decor of a room
    c. Textile labeling information in relationship to selection, use, care and cost
    d. Government legislation and regulations that pertain to household textiles

11. Caring for Home Interior Textiles

    a. Procedures to follow when
        (1) laundering
        (2) dry cleaning textile items
    b. Method of storage for accessories made from textiles
    c. Procedures for spot and stain removal using appropriate cleaning aids

12. Performing Saleable Skills in Specialized Services

    a. Decorative items used in selective areas of the house
    b. Standards related to the appearance and performance of the finished product
    c. Demonstrate finger dexterity to perform various hand tasks

13. Techniques for Constructing Bed Coverings

    a. Different styles of bed coverings
    b. Procedures used in taking measurements for fitted and non-fitted bedspread
    c. Information on work orders
    d. Using correct procedures and sewing techniques

14. Construction of Window Treatment

    a. Identify purposes, classification, types of mounting, and parts of window
    b. Suitable window treatments
    c. Basic window treatment
    d. Steps to follow in deciding upon a window treatment for a variety of windows
    e. Fabric for specific drapery or curtain construction
    f. Information on work order
    g. Steps in constructing various window treatments

h. Visually pleasing draperies and curtains for specified window
i. Hardware for draperies or curtains
j. Quality standards to evaluate window treatment

15. Using Accessories to Complete an Interior Design

a. Accessories used in home interiors
b. Accessories as a part of a design scheme
c. Careful selection and placement of accessories in interior design
d. Accessories from nontraditional and recycled materials

16. How Background Areas Provide a Setting for Furnishings in Home Interiors

a. Define the background areas of an interior design
b. Describe background areas

17. Procedures for Selecting and Installing Floor Coverings

a. Give examples of the main types of floor covering
b. Factors that determine suitability
c. Relate suitability of floor covering to the home interior situations
d. Ability to determine the amount of floor covering needed
e. Steps involved in installing floor coverings
f. Supplies, tools, and equipment needed to apply floor coverings
g. Quality standards accepted to evaluate installation of floor coverings
h. Methods of maintenance and care

18. Select Wall Coverings for Home Interiors

a. Identify considerations to be made before choosing a wall treatment
b. Wall treatments used in homes
c. Types of wall coverings suitable for application to different surfaces

19. Recommended Procedures for Applying Wall Coverings in Home Interiors

a. Definition of terms related to painting and wall papering
b. Determine amount of wall covering needed for a given area
c. Types of equipment used in application of wall covering
d. Correct procedures for applying wall coverings
e. Evaluate standards of acceptable quality

20. Analyze Selections of Ceiling Treatments for Home Interiors

    a. Ceiling treatments used to finish rooms
    b. How use of design elements and principles can solve difficult ceiling problems

21. Identify Various Pieces of Upholstered and Case Goods Furniture by Shape, Use, Period, and Style

    a. Identify furniture styles and shapes used in home interiors
    b. Correct terminology for describing furniture
    c. Furniture styles and shapes suitable for various home interiors

22. Quality of Furniture Construction in Upholstery and Case Goods

    a. Describe construction using correct terminology
    b. Factors which indicate quality in furniture construction
    c. Identify different types of woods used in the construction of furniture
    d. Inner construction of upholstered goods
    e. Strong and weak points in furniture construction

23. Appropriate Procedures, Techniques, and Products Used in the Restoration of Wood Products

    a. Select supplies, tools, and equipment used in refinishing and repairing furniture
    b. Techniques of repairing furniture before refinishing
    c. Recommended procedures in refinishing a piece of furniture
    d. Accepted criteria for good workmanship in upholstery process

24. Procedures for Reupholstering a Piece of Furniture

    a. Correct terminology related to tools and supplies used in upholstery
    b. Procedures used in upholstery
    c. Procedures for renovating inner construction of upholstered goods
    d. Ability to interpret a work order
    e. Procedures for attaching the decorative cover to upholstered furniture
    f. Evaluate upholstery process using standards for judging

Human Services Outline

1. Personal, Ethical, and Professional Qualifications of Workers for Employment Opportunities in the Human Services Industry

    a. Purpose and organization of a human services (home/health care) agency
    b. Human care responsibilities of members of a human services agency

    c. Functions of a human services agency
    d. Specific tasks performed as a human services technician or consultant
    e. Desirable characteristics in a human services aide or in a homemaker/home health aide
    f. Other sources of services available to individuals and families
    g. Desirable personal practices for human services personnel

2. Types of Client Needs, Services, and Tasks Associated with the Human Services Industry

    a. Physical and psychological needs all human beings share
    b. Comparison of the needs of the clients and the personal needs of the human services aide
    c. Variety of tasks performed to meet the basic needs of the client(s)

3. Types of Clients and Working Environments Associated with the Human Services Industry

    a. Kinds of clients requiring services from a human services aide
    b. Types of working environments in which the human services worker may be expected to perform tasks for clients

4. Performing Job Tasks Associated with Clients Who Are Ill or Who Have a Disability

    a. Broad goals in caring for clients who are ill or who have a disability
    b. Common reactions to illness and disability
    c. Coping with personal feelings concerning illness and disabilities
    d. Techniques in providing physical care for clients who are ill or who have a disability
    e. Primary sources of medical care for a client who is ill or who has a disability
    f. Proper procedures for communicating

5. Factors and Tasks Associated with Providing Services to Clients Who Are Children

    a. Basic physical and emotional needs of children
    b. Developmental behavior of children of various ages and under varying conditions
    c. Difference between discipline and punishment
    d. Ways in which a human services worker might care for a child as a client
    e. Techniques in providing care for children at various ages and stages of development
    f. Techniques in providing for the physical needs of children
    g. Techniques in providing for the emotional and other developmental needs of children

6. Factors and Tasks Associated with Aged or Elderly Clients
    a. The general aging process
    b. Common problems faced by the aged
    c. Types of services which may be necessary in meeting the needs of an aged client
    d. Techniques in providing for the physical needs of an aged client
    e. Techniques for use in assisting the aged client in meeting social and emotional needs
    f. Appropriate procedures for use when assisting aged clients with financial needs, tasks, and/or management
    g. Steps and concerns associated with caring for a dying person in the home

7. Personal and Cultural Attitudes toward Work
    a. Cultural, social, and psychological values of work
    b. Influences on a personal code of ethics
    c. Factors affecting the work ethic, personal productivity, and the economy

8. Relation of Self-Development to Job Selection and Success
    a. Factors influencing vocational goals and choices
    b. Services available for vocational planning
    c. Organization of resources to attain career goals

9. Factors Affecting Women's Decisions to Combine Marriage with Employment

10. Regulations Governing Employment
    a. Federal and state legislation governing employment
    b. Procedures involved in seeking and getting a job

11. Employment Opportunities Using Home Economics Knowledge and Skills
    a. Home economics careers for men and women
    b. Use of skills developed in the study of growth and guidance of children
    c. Career ladder opportunities in the apparel, textiles, and clothing services industries
    d. Career opportunities in foods and nutrition
    e. Employment opportunities using skills in housing and home furnishings

INDUSTRIAL ARTS EDUCATION

Program Description

Industrial Arts Education in North Carolina is defined as a study of technology and industry that provides opportunities for students to develop technological literacy and practical life skills through meaningful classroom and laboratory activities. These activities include problem solving (critical thinking/decision-making), designing, and constructing with tools, machines, materials, and processes.

The school prepares youths for the world in which they live. Since American society is distinctly characterized as industrial and/or technological, it becomes the function of schools to give every student an insight into, and understanding of, the technological nature of the society. This is what the program of industrial arts strives to do. It acquaints persons of all ages and both sexes with the basic aspects of industry and technology.

Recognizing the individual's inherent potential for reasoning and problem solving, for imagining and creating, for constructing and expressing with materials (from which comes technology and industry) Industrial Arts seeks to develop content and experiences to contribute to the growth and development of human beings commensurate with their potential. Thus, Industrial Arts is a basic and fundamental study for all persons regardless of educational goal or occupational pursuit.

Moreover, Industrial Arts enables students to: recognize and experience the integration and application of Industrial Arts knowledge and skills toward leisure and special interests, become knowledgeable about potential work/career opportunities, become better consumers of the products of industry and technology, and plan their educational opportunities (technical/professional). In addition, Industrial Arts Education provides students with fundamental knowledge and skills which will enable them to enter and pursue more in-depth training in selected trades and industrial occupations.

Opportunities to develop and apply leadership, social, civic, and technologically-related skills are provided through the Association for Industrial Arts Students of America (AIASA), the vocational student organization for Industrial Arts Education students.

Learning Outcomes

As an integral part of the total school curriculum, Industrial Arts Education programs are designed to enable students to:

1. Develop insight and understanding of technology and industry and its place in our culture.

2. Develop technical literacy skills that will assist them in becoming competent and productive citizens.

3. Develop creative, problem-solving, and decision-making abilities (critical thinking).

4. Discover and develop their individual talents, aptitudes, interests, and individual potential as related to our technological environment.
5. Develop a measure of skill in the use of tools, materials, and processes as both consumers and potential workers.
6. Develop attitudes and habits of safety.

Scope and Sequence of Industrial Arts Education

The scope and sequence of Industrial Arts Education fundable through vocational education includes varied content and experiences for students in grades 7-12. Students may enter and progress through one of the several program sequences in order to achieve their major objectives in the Industrial Arts Education program.

Concepts and experiences related to Industrial Arts Education contribute to three major levels of growth and development for children within the public schools. They are: (1) learning reinforcement of basic instructional areas, (2) exploratory/practical life skills, and (3) pretechnical/professional/personal consumer skills.

Elementary

Industrial Arts concepts at this level are integrated with regular instruction. These serve to establish technical literacy in terms of vocabulary, comprehension, word attack skills, and math skills. The approach is to utilize Industrial Arts "doing" aspects as a motivational technique. The purpose is learning reinforcement.

Junior High/Middle School

The middle/junior high school program provides opportunities to apply technical literacy concepts acquired at the elementary school. Exploring technology is offered at grade 7, and Contemporary Industries is offered at grade 8. The first semester in each 7th and 8th grade offering serves as the "introductory" instructional area. The courses provide instruction that may be applied as (1) practical life skills or (2) prevocational information for further educational planning.

High School

Industrial Arts at the high school level serves as an applied laboratory to gain knowledge and skill to use in several ways. Through a variety of course offerings it provides further opportunity for students continuing in Industrial Arts as well as for students who are enrolling for the first time. The focus is toward providing instruction in each of the course offerings that may be applied toward advancing in education (pretechnical or professional) and developing practical life knowledge and skills.

Special Note:

Practical Life Skills: Instruction in practical life skills is a major component of all Industrial Arts programs. Practical life skills are viewed as knowledge and skills which enable a person to function as a better consumer and which enrich the recreational and avocational life of the individual. Problem-solving and decision-making patterns are combined with the concrete skills in consumer choice, use, and maintenance of goods produced by society's technology as well as in personal interest areas of the individual. All courses cited in the program scope and sequence in Industrial Arts provide opportunity for the development of practical life skills in individual students.

The scope and basic offerings in Industrial Arts Education at the high school level include:

- Manufacturing
- Construction
- Communication
- Energy/Power and Transportation
- Technical Drawing and Planning
- Materials and Processing

In addition to the traditional or basic offerings, the more comprehensive programs in Industrial Arts Education may include one or more specialized offerings based upon the needs of the local community. Possible specialized or supplemental local offerings within Industrial Arts Education include:

- Architectural Drawing and Planning
- Basic Electricity/Electronics
- Graphic Arts
- Metal Technology
- Plastics Technology
- Wood Technology

The following chart provides an example of the scope and sequence of these program offerings for a given situation in which a comprehensive program is possible.

SAMPLE SCOPE AND SEQUENCE FOR INDUSTRIAL ARTS EDUCATION

K-5(6)	Grade 7	Grade 8	Grades 9-12
*Elementary Industrial Arts	Exploring Technology (S/Y)	Contemporary Technology (S/Y)	Manufacturing Technology (S/Y)
			Construction Technology (S/Y)
			Communications Technology (S/Y)
			Energy/Power & Transportation (S/Y)

*Note:
While this is part of the scope for Industrial Arts Education, expenditures from Vocational funds are restricted to Grades 7-12

Specialized Unit Shop Courses

Grades 10-12

- Technical Drawing & Planning (S/Y)
- Materials & Processing Technology (S/Y)
- Basic Electricity/ Electronics Technology (S/Y)
- Wood Technology (S/Y)
- Plastics Technology (S/Y)
- Metals Technology (S/Y)
- Graphic Arts Technology (S/Y)
- Architectural Drawing & Planning (S/Y)

NOTE: Y = 1 year S = 1 semester

Courses are shown at first grade level to be offered and may be offered at any succeeding grade level.

As illustrated in the chart, the total scope and sequence of Industrial Arts Education includes varied content/experiences for students in grades K through 12. Students may enter and progress through one of the several program sequences in order to achieve their major objectives within Industrial Education.

"Exploring Technology" is offered at grade 7 to provide prevocational instruction in Industrial Arts. Instructional experiences are provided in four cluster areas: Manufacturing, Construction, Communication, and Energy/Power and Transportation. These cluster areas are designed to: include hands-on experiences relating to tools, materials, and processes in the area; teach about technology and industry; provide an awareness of broad career possibilities; and identify further educational opportunities in secondary and postsecondary schools. Where Exploring Technology is offered at grade 7, students at the next level (grade 8) elect Contemporary Industries.

When students have been enrolled in the Industrial Arts Education exploratory courses or in the Prevocational Education-Industrial Lab at grade 7 and 8, they elect from the following semester courses at grade 9: Manufacturing (drawing, woods, synthetics, metal), Construction (drawing, woods, synthetics), Energy/Power (fundamentals of energy/power sources, generation, transmission, application, conversion, and utilization of basic power units), and Communication (electronic, visual, and graphic).

Students follow grade 9 semester offerings by electing at grade 10 from the following unit shop introductory courses: Wood Technology, Metals Technology, Plastics Technology, Technical Drawing and Planning, Architectural Drawing and Planning, Basic Electricity/Electronics, Energy/Power and Transportation, and Graphic Arts. Unit shop introductory courses allow students to pursue and develop introductory knowledge and basic skill which is pretechnical (preparation for advanced training), could lead to enrollment in vocational skill development instruction in Trade and Industrial Education, and/or could satisfy a preprofessional or special interest. It should also be noted that students in grades 11 and 12 may take introductory courses identified at grade 10.

Architectural Drawing and Planning Outline

1. Introduction to Architectural Drawing/Planning

2. Career Information

3. Drawing Instruments

4. Consideration in Planning a House

   a. Basic house design
   b. Primary consideration

5. Alphabet of Lines

6. Sketching Techniques to Architectural Plans

   a. Rough sketch
   b. Two-point perspective

7. Plot Plan in Architectural Drawing

   a. Function of plot plan
   b. Draw the plot plan

8. Representation of Building Components and Materials in an Architectural Drawing

9. Elevations in Architectural Drawing and Planning

    a. Purpose and function of elevation
    b. Requirements for drawing elevation
    c. Geometric construction
    d. Roof pitch calculation

10. Foundation Plans

    a. Footing and foundations
    b. Purpose and function of foundation plans

11. Architectural Floor Plan

    a. Planning sleeping, living, and service area
    b. Exterior and interior doors
    c. Windows
    d. Function of floor plan
    e. Procedures for drawing floor plan
    f. Electrical plan

12. Fireplaces and Chimneys

13. Climate Control Systems

    a. Heating and air conditioning
    b. Estimating a climate control system

Basic Electricity/Electronics Technology Outline

1. Introduction

2. Careers Related to Electricity/Electronics

3. Knowledge of Science of Electronics

    a. Atomic theory
    b. Law of charge
    c. Electrical terms

4. Sources of Electricity

    a. Six sources of electricity
    b. Processes of obtaining electricity from six basic sources

5. Demonstrate Circuits and Power
    a. Ohm's Law
    b. Watt's Law
    c. Function of (resistance, voltage, and current)
    d. Series circuit
    e. Parallel circuits
    f. Series/parallel circuit

6. Laws of Magnetism
    a. Magnetism
    b. Solenoid
    c. Electromagnet

7. Applications of Law of Generators
    a. Faraday's experiment
    b. Lenz's Law
    c. Commutators
    d. Armatures
    e. Generators

8. Standard Symbols Used in Electrical or Electronic Industries

9. Inductance and RL Circuits
    a. Inductance
    b. Henry
    c. Transformer

10. Capacitance in Electronic Devices

11. Function of Electron Tubes in Electronic Devices

12. Power Supplies in Electronic Devices
    a. Purpose and function of power supply
    b. Purpose and function of half-wave rectification, full-wave rectification, filter
    c. Experiments demonstrating various functions of power supplies

13. Function of Solid State Devices in Electronic Circuits
    a. Diodes
    b. Transistors
    c. Resistors
    d. Integrated Devices

14. Digital Electronics in Electronic Industries

    a. Computer structure
    b. Digital logic gates
    c. Function of major section of the computer
    d. Binary system

15. Electronic Communication Systems

    a. Components of communication system
    b. Radio transmitters
    c. Radio receiver
    d. Communication system (microwave, laser, etc.)

16. Amplifiers in Electronic Systems

    a. Function of amplifier
    b. Experiments with Amplifier

17. Electrical Motors

18. Application of Electricity and Home Wiring System

    a. Significance of the colors of wires in home wiring system
    b. Switching

Communications Technology Outline

1. Introduction to Communication Technology

2. Career Information About Visual, Graphic, and Electronic Communication

3. Definition of Communications

    a. Encoding
    b. Transmitting
    c. Receiving
    d. Decoding
    e. Storing
    f. Retrieving

4. Systems of Communication

    a. People to people
    b. Human to machine
    c. Machine to machine

5. Shannon Communications Model
    a. Define the Shannon Communications Model
    b. Comparison of human communications to machine communication
    c. Methods of transmitting a message
    d. Three channels and effects of noises on each
    e. Electronic receiver vs. nonelectronic receiver
6. Visual Communication (Drawing) and the Communication Model
7. Mechanical Aids for Producing Accurate Visual Interpretation
    a. Basic sketching fundamentals
    b. Sketching techniques
    c. Sketching multiview and pictorial drawing
    d. Drawing instruments
8. Constructing Geometric Figures
9. Precision Drawings in the Visual Communication Process
    a. Multiview drawing
    b. Basic symbols and rules for dimensioning
    c. Shape and size
    d. Proper dimensioning techniques
    e. Isometric, oblique, and perspective pictorial drawing
    f. Auxiliary view
10. Graphic Communications to Shannon Communications Model
11. Letterpress Printing
    a. Letterpress procedures
    b. Methods of figuring paper
    c. Operation of paper cutter
12. Principles of Bookbinding
13. Screen Printing Technique
    a. Hand cut stencils
    b. Photographic silk-screen printing process
14. Scientific Principle and Operation of Lithography
15. Relationship of Electronic Communication to the Shannon Communication Model

16. Basic Electronic Processes

    a. Power supplies
    b. Amplifier
    c. Oscillator

17. Operating Principles of One-Way Communications Systems

    a. Radio
    b. Phonograph
    c. Television
    d. Tape Recorder

18. Two-Way Communication System

    a. Telegraph
    b. Telephone
    c. Radar
    d. Satellites
    e. Computers

19. Electronic Communications Storage Devices

Construction Technology Outline

1. Introduction to Construction Technology

2. Career Information within Construction Technology

3. Define the Construction Technology System

4. Element Involved in Preparation of Construction Projects

5. Site and Foundation Preparation/Construction

    a. Cleaning and grading the site
    b. Foundation types

6. Construction Superstructure

7. Installation of Utilities

    a. Define utilities
    b. Plumbing systems
    c. Electrical
    d. Emerging alternative energy sources

8. Structure Enclosures

9. Interior Finishing

10. Management Within Construction Technology

11. Concepts of Marketing and Real Estate Within Construction Technology

Contemporary Technology Outline

1. Introduction

    a. Contemporary industry/technology--an overview
        (1) standard industrial classification system
        (2) industry in North Carolina (Dept. of Labor/Economic Development)
        (3) the systems of technology--rationale
        (4) orientation to the laboratory
        (5) class rules/procedures
        (6) class discussion/simulation
        (7) scope of contemporary industry/technology quiz and feedback
    b. Manufacturing
        (1) the systems model/overview of manufacturing
        (2) the concepts--definitions
        (3) the taxonomy
        (4) contemporary concepts and methods
        (5) contemporary concepts (CAD/CAM, computer integrated manufacturing, automation/cybernetics, robotics, and contemporary management system)
    c. Construction
        (1) the systems model/overview of construction
        (2) the concepts--definition
        (3) the taxonomy
        (4) contemporary concepts and methods
    d. Communication
        (1) the systems model/overview of communication
        (2) the concepts--definition of communication
        (3) the taxonomy--the scope of communication
        (4) contemporary concepts and methods
    e. Transportation/energy
        (1) the systems model/overview of transportation
        (2) the concepts--definition of transportation
        (3) the taxonomy--the scope of transportation
        (4) contemporary concepts and methods

Energy/Power and Transportation Outline

1. Introduction to Energy/Power Transportation Technology

2. Careers Related to Energy/Power Transportation

3. The World's Energy Situation

    a. Direct and indirect sources of energy
    b. Renewable and nonrenewable sources of energy
    c. Conventional energy sources
    d. Selected alternative energy sources
    e. Methods of producing and possible future development of present and alternative energy sources
    f. Access to each energy source (conventional and selected alternative)

4. Scientific Principles of Practical Applications of Energy Conversion

    a. Law of Energy Conversion
    b. Four processes of converting chemical energy into useful power
    c. Internal combustion engines
    d. Servicing of small internal combustion engines
    e. Safe use of small internal combustion engine tools and equipment
    f. Operating principles of selected external combustion engines
    g. Law of motion and force
    h. Principle of fluidics (hydraulics and pneumatic)
    i. Wind energy
    j. Electrical processes for converting energy into power
    k. Magnetic processes for converting energy into useful power
    l. Commercial production of electricity in North Carolina
    m. Thermal and radiant processes in energy conversion
    n. Solar energy conversion
    o. Biomass, waste, alcohol, geothermal, gravity, peat, and wood converted into useful energy
    p. Consumerism or purchase-user of conversion techniques

5. Scientific Principles and Practical Applications of Energy Storage, Transmission, and Control

    a. Devices used to store converted energy
    b. Transmitting energy
    c. Transmission types
        (1) light
        (2) thermal
        (3) mechanical
        (4) chemical
    d. Methods of controlling power
    e. Heating efficiency (solar flat plates)
    f. Trees used for energy conservation
    g. Air heat grabbers

6. Scientific Principles of Practical Applications of Energy Conservation

   a. Concert "conservation ethic"
   b. Factors involved with saving energy
      (1) political
      (2) psychological
      (3) historical
      (4) socio-economic
   c. Private, commercial, industrial, and public sector approaches to conserving energy
   d. Energy use in transporting people
   e. Energy conservation in vehicle maintenance
   f. Energy conservation in driving habits
   g. Energy conservation in home energy audits
   h. Energy conservation in increased insulation of building
   i. Energy conservation in home furnishing
   j. Energy conservation in exterior and interior design of building

Exploring Technology Outline

1. Introduction to Technology Development

   a. Industrial arts--a study of technology
   b. Leadership and personnel system

2. Area Identification (Tools and Machines)

   a. Subtopic identification
   b. Construction phase
      (1) model development
      (2) report development
      (3) display development
   c. Seminar phase

3. Area Identification (Communications and Transportation)

   a. Subtopic identification
   b. Construction phase
      (1) model development
      (2) report development
      (3) display development
   c. Seminar phase

4. Area Identification (Power and Energy)

   a. Subtopic identification
   b. Construction phase

        - (1) model development
        - (2) report development
        - (3) display development
    - c. Seminar phase

5. Area Identification (Manufacturing and Construction)

    - a. Subtopic identification
    - b. Construction phase
        - (1) model development
        - (2) report development
        - (3) display development
    - c. Seminar phase

6. Area Identification (Societal Concerns)

    - a. Subtopic identification
    - b. Construction phase
        - (1) model development
        - (2) report development
        - (3) display development
    - c. Seminar phase

7. In-Class Industrial Arts Student Association

Graphic Arts Technology Outline

1. Introduction to Graphic Arts Technology

2. Career Information Related to Graphic Arts Technology

3. Letterpress Printing

    - a. History
    - b. Platen press
    - c. Typography
    - d. Multiform letterpress
    - e. Power platen press
    - f. Safety
    - g. Relief printing

4. Screen Printing

    - a. History
    - b. Hand-cut stencil
    - c. Photographic silk screen printing
    - d. Nonphotographic positives

5. Offset Lithography
   - a. Basic principles of offset lithography
   - b. Educational needs and occupations
   - c. Nonphotographic negatives
   - d. 2-color project
   - e. Safety and offset press operations

6. Concepts of Design in Graphic Arts Industry

7. Concepts of Composition in Graphic Arts Industry

8. Principles of Line Photography in the Graphic Arts Industry
   - a. Occupational opportunities
   - b. Principles and mechanics of line photography
   - c. Operating an industrial copy camera
   - d. Handling, exposing, developing, fixing
   - e. Safety procedures in the darkroom
   - f. Plate-making
   - g. Offset press operation

9. Candid Photography in the Graphic Arts Industry
   - a. Educational needs and occupational opportunities
   - b. History of photography
   - c. Equipment of photography
   - d. Kinds of photography
     - (1) candid
     - (2) live
     - (3) halftone
     - (4) color
     - (5) portrait
   - e. Exposing and developing photographic panchromatic film
   - f. Making photographic prints using the enlarger

10. Paper Technology within the Graphic Arts Industry
    - a. Mathematical and operational procedures in paper (utilization)
    - b. Scope of occupations in the paper industry
    - c. Kinds of paper and weight of paper
    - d. Paper cutting
    - e. Estimating paper needs for selected jobs
    - f. Safety procedures of the paper cutter
    - g. Paper cutter operations

11. Technology and Applications of Chemical Principles in Ink Utilization
    - a. Manufacture of ink
    - b. Kinds of ink
    - c. Production techniques of paint shop operation

12. Bookbinding in the Graphic Arts Industry

    a. Principles of bookbinding
    b. Rebinding magazines and old books
    c. Thesis binding
    d. Procedures of binding book
        (1) quarter bound
        (2) half bound
        (3) three quarter bound

13. Half-Tone Photography in the Graphic Arts Industry

14. Screen Tint Printing

15. Duotone Printing

16. Photographic Processes in Screen Printing

17. Photographic Offset Processes in Offset Lithography

Manufacturing Technology Outline

1. Introduction to Manufacturing Technology

2. Related Career Information for Manufacturing Technology

3. Define the Technological System of Manufacturing

    a. Main essentials of manufacturing
    b. Key elements of manufacturing
    c. Impact of manufacturing on communities and countries

4. Design Process in the Technological System of Manufacturing

    a. Consumer demand effects on manufacturing
    b. Determining demand for products
    c. Process of research and development
    d. Steps of product design
    e. Function of technical manuals

5. Production Planning Process

    a. Steps in production planning
    b. Function of automation in manufacturing
    c. Product cost estimate
    d. Steps in the tooling-up process
    e. Production process (controlled)
    f. Elements of design and production of the product package

6. Production Process

7. Marketing Process in Manufacturing

    a. Elements of the marketing process
    b. Sales people in the marketing process

8. Operations and Management Process

    a. Steps for establishing a manufacturing company
    b. Factors in personnel management

9. Servicing Process in Manufacturing

    a. Function of service
    b. Judging serviceability

10. Chemical and Physical Characteristics of Common Raw Material/How Changes Necessary for the Raw Materials to be Useful Products

    a. Selection of materials utilized in the product
    b. Raw materials used in the production process
    c. Elements of the production process
    d. Hardwood and softwood
    e. Processing of wood
    f. Tools in woodworking
    g. Safe use of hand tools
    h. Safe use of power tools and equipment used in woodworking
    i. Safe use of power tools and equipment in metal manufacturing
    j. Knowledge of blueprint reading

Materials and Processing Outline

1. Introduction to Material Processing

2. Processing of

    a. Wood
    b. Metal
    c. Plastic

3. Testing the Properties of Materials

    a. Compare different properties of materials
    b. Methods of testing properties
        (1) physical
        (2) thermal
        (3) chemical
        (4) electrical

4. Describe Material Properties

    a. Wood
    b. Metal
    c. Plastic

5. Methods of Processing Materials

    a. Cohesion
    b. Adhesion
    c. Bonding (wood, metal, plastic)
    d. Adding materials

6. Removing Materials

    a. Cutting
    b. Shearing
    c. Redistributing
    d. Changing properties

7. Safety Working Habits

    a. Safety in the law
    b. Safety rules and precautions
    c. OSHA regulations

8. Using Appropriate Materials to Fabricate Usable Articles

9. Identification of Careers in Materials Processing

Metals Technology Outline

1. Introduction to Metals Technology

    a. Exploring metal technology occupations
    b. Physical characteristic
    c. Societal impact

2. Mining and Refining Metals

3. Safety in Metal Technology Lab

4. Measuring and Layout Tools

    a. Choice of materials
    b. Measuring sheet stock
    c. Measuring heavy stock
    d. Metric measurement

5. Design

   a. Requirement for design
   b. Principle of design
   c. Design analysis method

6. Drawing and Sketching

   a. Kinds of drawings
   b. The alphabet of lines
   c. Dimensions
   d. Scale

7. Developing and Transferring Patterns

   a. Transfer fluids
   b. Pattern development methods
   c. Enlarging a pattern

8. Cutting Heavy Metal

   a. Hand hacksaw
   b. Power hacksaw
   c. Cold chisel
   d. Throatless shears
   e. Slitting shears

9. Cutting Sheet Metal

   a. Hand snips
   b. Tin snips or hand shears
   c. Squaring shears
   d. Jeweler's saw
   e. Punches

10. Drilling

    a. Drilling machines and equipment
    b. Grinding a drill
    c. Drilling

11. Use of Various Metals

    a. Ferrous and nonferrous metals
    b. Hot rolled and cold rolled metals
    c. Production process for manufacturing iron and steel

12. Tools for Equipment Related to Metals Industries

    a. Tools for holding work to drilling machines
    b. Reamers
    c. Taps and dies

13. Fitting and Assembly

    a. Safe and proper use of vises, clamps, and pliers
    b. Riveting metal together

14. Hot Metal Processes in Industry

    a. Soldering and brazing
    b. Arc welding
    c. Oxyacetylene welding
    d. Hand forging
    e. Heat treating
    f. Hot (poured) metal

15. Tool Care in the School and Industrial Setting

16. Finishing and Inspecting Processes Used in Industry

    a. Buffing process
    b. Applying finish to metal
    c. Quality control

17. Machine Tools Used in Metal Industry

    a. Metal lathe
    b. Metal shapes
    c. Milling machines (horizontal and vertical)

Plastics Technology Outline

1. Introduction

2. Career Information

3. Safety

4. Chemical and Physical Properties of Plastic Materials

    a. Major groups of plastic
    b. Thermoset or thermoplastic

5. Forming Material into Usable Product

    a. Major methods of forming thermoplastic material
    b. Vacuum forming
    c. Casting
    d. Filler material
    e. Acrylic polymers

Technical Drawing and Planning Outline

1. Introduction to Technical Drawing and Planning

2. Career Information for Technical Drawing and Planning

3. Sketching and Simplest Visual Communication Technique

    a. Basic sketching fundamentals
    b. Acceptable sketching technique
    c. Sketch of multiview drawing

4. Mechanical Aids in Producing Accurate Visual Interpretation

5. Construction of Geometric Figures

6. Practical Applications of Precision Drawings in Visual Communications Process

    a. Multiview drawings
    b. Lines, symbols, dimensions
    c. Rules for dimensioning
    d. Pictorial drawing
        (1) isometric
        (2) oblique
        (3) perspective
    e. Sectional views
    f. Auxiliary views
    g. Revolutions

7. Surface Development

    a. Classes of surface development
    b. Parallel lines
    c. Cylinders
    d. Patterns for a two-piece elbow
    e. Patterns for a truncated circular cone
    f. Intersection of a cylinder with a cone

8. Manufacturing Processes in Technical Drawing and Planning

   a. Define manufacturing processes
      (1) spot face
      (2) counter bore
      (3) counter sink
      (4) counter drill
      (5) ream
      (6) broach
      (7) chamber
      (8) hone
      (9) grind
   b. Cams and gears
   c. Fasteners (screws and bolts)

Wood Technology Outline

1. Introduction to Wood Technology

2. Career Information About Wood Technology

3. Operational Procedures in Wood Technology Classroom/Laboratory

4. History of Wood as a Natural Resource in the Construction of Useful Products

   a. Wood as a natural resource
   b. Evolution of forest products and tools

5. Practical Application of Research and Design Concepts in Planning For Construction of a Product

   a. Furniture styles
   b. Components of design as related to wood construction
   c. Working drawings
   d. Selecting and activity project
   e. Procedures for a product

6. Physical and Chemical Characteristics of Woods in Product Construction

   a. Classification of trees
   b. Main parts of a tree
   c. Types of wood common to woodworking

7. Conversion of Wood from Raw Materials into a Useable Form for Construction

   a. Process of tree from forest to mill site
   b. Methods of processing logs into lumber

8. Useful Products Processed from Forest

9. Ensure Safe Working Environment within the Wood Technology Lab

10. Operation of Stationary Power Equipment used in Processing Wood into Usable Product

    a. Tablesaw
    b. Jointer
    c. Radial arm saw
    d. Bandsaw
    e. Jigsaw
    f. Shaper
    g. Lathe
    h. Router
    i. Drill press
    j. Mortise machine
    k. Table belt sander
    l. Vertical/Horizontal sander
    m. Pneumatic sander
    n. Disk sander
    o. Spindle sander
    p. Mitre box saw

TRADE AND INDUSTRIAL EDUCATION

Program Description

The mission of Trade and Industrial Education is to prepare students for careers in industry and the trade occupations through a sequence of learning experiences designed to enable them to achieve their highest occupational potential. These learning experiences are presented in the introductory courses, skill development courses, and the student organization activities. Vocational Industrial Clubs of America (VICA), the student organization for Trade and Industrial Education, complements each course and therefore, is essential in order for students to achieve their goals within Trade and Industrial Education. When the component parts are brought together as a whole, the teacher and school can offer a truly comprehensive Trade and Industrial Education program.

As a component of Vocational Education, Trade and Industrial Education is concerned with preparing students for initial employment and advancement in a wide range of trade and industrial occupations. It is a balanced program of classroom study and practical work experiences that achieve the goal of producing competent workers. The courses available in Trade and Industrial Education are developmental rather than terminal, thus providing maximum options for male and female students to become employed or to continue their education and training at the postsecondary level.

The purpose of Trade and Industrial Education is to provide education of high quality which is realistic in light of actual or anticipated opportunities for gainful employment and which is suited to students' needs, interests, and abilities. In each course, provisions are made for the student to develop psychomotor skills, attitudes, work habits, knowledge, and the general principles relative to the occupations. These learning experiences are taught in shops and laboratories or through on-the-job training for skilled and semi-skilled occupations concerned with designing, producing, processing, assembling, testing, and maintaining any product or commodity. All occupations of a trade and industrial nature are potential offerings with special emphasis on apprenticeable occupations. These courses provide a means by which students become responsible and productive citizens and enjoy the benefits of an affluent society.

Learning Outcomes

The major objectives in Trade and Industrial Education are to:

1. Provide opportunities for students to develop the basic manipulative skills relative to occupations through a combination of simulated shop and laboratory experiences or on-the-job training experiences.

2. Provide students with technical information (principles and theory) with emphasis on concepts of mathematics, design, economics, and science pertinent to employment and success in an occupation.

3. Provide students with general-related instruction which includes such areas as human relations, safety and health habits, the world of work, and other socioeconomic factors essential to employment and success in an occupation.

4. Provide for students through the National and State Student Organization (VICA-Vocational Industrial Clubs of America) opportunities to develop leadership abilities, civic responsibilities and other qualities essential in the world of work.

Scope and Sequence for Trade and Industrial Education

The total scope and sequence of Trade and Industrial Education includes varied program offerings for students in grades 10 through 12. Students may enter and progress through one of several program sequences in order to achieve their major objectives in the Trade and Industrial Education program. The determination of which sequence(s) of offerings to make available to students in a local education agency should be based upon a documented assessment of the needs and interest of students, the labor and resources in the community/region, program enrollment, and availability of qualified teaching staff and appropriate instructional facilities.

In Trade and Industrial Education, the scope of program offerings includes, but is not limited to, the following courses:

Construction

Masonry
Carpentry
Plumbing
Electrical Trades
*Climate Control

Manufacturing

Cabinetmaking
Furniture
Electronics
Textiles
Machine Shop
Welding

Transportation

Aerospace
Auto Mechanics
Auto Body Repair

Communication

Technical Drafting
Graphics and Industrial Communications

Public and Private Industry Services

Cosmetology
Marine Occupations
Industrial Cooperative Training
*Maintenance

*NOTE: Competency listings and test item banks are currently being developed for these courses.

Primarily based upon job market demand and student interests, each local education agency must decide on the variety and range of program offerings in each school. The following chart represents the scope and sequence of offerings for a given situation in which a comprehensive Trade and Industrial Education program is possible.

SAMPLE SCOPE AND SEQUENCE FOR TRADE AND INDUSTRIAL EDUCATION

Cluster	Grades 10-12	Grades 11-12	*Grade 12
	**Introduction to Trade and Industrial Education OR		
Construction	Masonry I Carpentry I Plumbing I Electrical Trades I Climate Control I	Masonry II Carpentry II Plumbing II Electrical Trades II Climate Control II	Masonry III Carpentry III Plumbing III Electrical Trades III Climate Control III
Manufacturing	Cabinetmaking I Furniture I Electronics I Textiles I Machine Shop I Welding I	Cabinetmaking II Furniture II Electronics II Textiles II Machine Shop II Welding II	Cabinetmaking III Furniture III Electronics III Textiles III Machine Shop III Welding III
Transportation	Aerospace I Auto Mechanics I Auto Body Repair I	Aerospace II Auto Mechanics II Auto Body Repair II	Aerospace III Auto Mechanics III Auto Body Repair III
Communication	Technical Drafting I Graphics & Industrial Communications I	Technical Drafting II Graphics & Industrial Communications II	Technical Drafting III Graphics & Industrial Communications
Public and Private Industry Services	Cosmetology I Maintenance I Marine Occupations I	*Industrial Cooperative Training I Cosmetology II Maintenance II Marine Occupations II	*Industrial Cooperative Training II Cosmetology III Maintenance III Marine Occupations III

Courses are shown at first grade level offered, but may be offered at any succeeding grade level.

*Cooperative work experiences, internships, and/or production work activities are strongly encouraged for each student enrolled at this level.

**Blueprint Reading should be incorporated into ITIE sequence.

Introductory Courses

Introduction to Trade and Industrial Education is an introductory offering designed to familiarize students with a number of T&I occupations and special skills required for employment. This course should aid students in making a career decision about Trade and Industrial Education at Level II. The ITIE course uses the cluster approach with study of two or more T&I occupations. The clusters included should reflect the skill development courses available within the school at Level II (and other needs identified in the community). The length of each cluster may vary, dependent upon the needs of the community and the number of clusters included. Where feasible, students participating in this course are to receive an orientation to Industrial Cooperative Training (ICT) by the coordinator lasting at least one or two weeks. Instructors are expected to use 50% of the class time for "hands-on" experiences in the shop or laboratory. The advanced skill development T&I courses (Level II and Level III) must be available to students in order to receive funding approval of ITIE.

Level I--Introductory Course is an introductory course designed to familiarize students with a specific T&I occupational area and the special skills required for employment. This course should aid students in making a career decision about Trade and Industrial Education at the next level. Instructors are expected to spend at least 50% of the class time in the "knowing" element of the trade, with remaining time in the "doing" element of the trade. The advanced level course (Level II and Level III) for this specific Level I course must be available to students in order to have a comprehensive program.

Skill Development Program Offerings

Industrial Cooperative Training (ICT) is a cooperative effort of the school, home, business, and industry to provide students with on-the-job training to meet their vocational needs, interests, and abilities. The training provides supervised occupational experiences enabling student-workers to acquire skills, related technical information, and desirable work habits and attitudes. The ICT course is available to students who are at least 16 years of age and is normally offered at grades 11 and 12. Completion of ICT I is a prerequisite for enrollment in ICT II.

In the cooperative setting, employers provide on-the-job training in actual working conditions under the supervision of a craftsperson. In cooperation with the employer, a training plan must be developed for each student in order that both may achieve their goals. Students work approximately three to five hours a day during school days, receiving wages and school credit for satisfactory in-school and on-the-job training. The school provides a certified teacher/coordinator who correlates the technical related information taught in school with the student/worker's on-the-job training. General related information designed to develop positive attitudes and leadership abilities is an integral part of the instructional program.

Trade Preparatory Training (TPT) provides training in the basic psychomotor skills and knowledge of an occupational area in order to enter employment at an advanced level. Trade Preparatory Training is competency based; therefore, when a student has acquired the stated competencies, s/he has the option of moving into an ICT program for on-the-job training. TPT consists of Level II courses being taught on the 11th grade level for 550 minutes per week and Level III courses at the 12th grade for 550 minutes per week. If a Level III course has a live project or requires extra time for setup or other conditions, it should be 825 minutes per week.

Instructors are expected to use at least 50% of the class time in the "doing" element of occupation, with approximately 30% in the "knowing" element and 20% on other values important in training an advanced student.

Specialized Skill Development Offerings

In addition to the traditional offerings, the more comprehensive programs in Trade and Industrial Education may include one or more course options or specialized offerings based upon the needs of the local community. Several possible local offerings that focus either on a specific trade or specialized service technology are identified below:

Construction

- Sheet Metal

Manufacturing

- Tailoring
- Upholstery

Transportation

- Diesel Mechanics
- Small Gasoline Engines

Public and Private Industry Services

- Business Machine Maintenance
- Law Enforcement
- Appliance Repair
- Air Conditioning/Refrigeration
- Programming and Broadcasting

These courses provide a more specialized base of preparation for Trade and Industrial Education students. Outlines are included for some of these courses.

Aerospace Outline

1. Introduction to the Airplane

   a. Assembling components of simple aircraft
   b. Fixed wing aerodynamics

2. Instruments and Systems

   a. Operation of aircraft airframe
   b. Operation of engine systems

3. Aircraft Hand Tools

   a. Hand tool usage
   b. Safety precautions

4. Aviation-Aerospace History

   a. Stages of development
   b. Feats of aviation-aerospace

5. Weight and Balance

   a. Basic knowledge of theory
   b. Basic knowledge of practice

6. Meteorology

   a. Knowledge of theory
   b. Forecast information to flight planning

7. Flight Computer

   a. Basic aviation calculations
   b. Develop flight plans

8. Navigation

   a. Dead reckoning and pilotage navigation
   b. Preparation of navigation log
   c. Wind triangle
   d. Five types of aerial navigation

9. Radio Navigation

   a. VOR navigation system
   b. Automatic direction finder
   c. Current radio aids
   d. Preparation of navigation log

10. Safety

    a. Operating procedures for tools
    b. Operating procedures for equipment

11. Careers

    a. Career and occupational opportunities
    b. Aerospace fields

12. Communications

    a. Microphone usage
    b. Light aircraft equipment
    c. Morse code

13. Federal Aviation Regulations

    a. Define Regulations
    b. Interpret rules

14. Aircraft Materials

    a. Materials for aircraft components
    b. Defects

15. Aircraft Structures

    a. Plans and specifications
    b. Aircraft parts from plans

16. Aircraft Stability

    a. Three control axes
    b. Primary and auxiliary control devices

17. Design

    a. Characteristics
    b. Structure, construction, and fuels

18. Power Plants

    a. Aircraft reciprocating and reaction engines
    b. Operation of reciprocal engine
    c. Function of engine parts

19. Space

    a. Flight history facts
    b. Body placement
    c. Categories of space exploration

20. Flight Physiology

    a. Effects of high altitude
    b. Sensory effects
    c. Drug and alcohol usage

21. Airports and Traffic Control

    a. Types of airports and runways
    b. Traffic patterns for landing and takeoff
    c. Rules of flight

22. Advanced Aerodynamics

    a. Structural changes and additions
    b. Problems

23. Airmans Information Manual

    a. Necessary information
    b. Desired information

24. Flight Planning

    a. Procedures
    b. Use of operational flight plan

25. Social, Cultural, Economic, and Political Impact of Aerospace

    a. Social and cultural impact
    b. Economic and political impact

26. Flight Training (optional)

    a. Preflight checklist
    b. Flight maneuvers

27. Leadership

    a. Characteristics of a good leader
    b. Importance of parliamentary procedure
    c. Correct use of 17 parliamentary procedures
    d. VICA participation

Auto Body Repair Outline

1. Introduction
    - a. Orientation
    - b. Safe working habits
    - c. Paint and body shop safety procedures

2. Body and Frame Construction
    - a. Identification of types of frame construction
    - b. Identification of types of body construction

3. Auto Body Tools and Equipment
    - a. Proper use of hand tools
    - b. Proper use of body tools
    - c. Proper use of power tools and equipment

4. Welding
    - a. Fusion weld mild steel
    - b. Brazing mild steel
    - c. Brazing sheet aluminum
    - d. Cutting mild steel
    - e. Welding mild steel with electric arc welder
    - f. Welding mild steel with gas metal arc welder
    - g. Welding mild steel with gas tungsten
    - h. Welding sheet aluminum with gas tungsten arc process
    - i. Welding mild steel sheet metal

5. Basic Repair Procedures
    - a. Preparation of damaged surface
    - b. Roughing out and aligning
    - c. Finishing metal
    - d. Shrinking stretched areas
    - e. Filling damaged areas

6. Hardware, Glass, and Trim
    - a. Exterior moldings and trim
    - b. Interior trim
    - c. Hardware
    - d. Automobile glass
    - e. Types of fasteners used in automobile assembly

7. Major Damage Repair

   a. Use of measuring tools
   b. Using gauges and measuring devices
   c. Repairing frame and underbody damage
   d. Aligning body shell and body panels
   e. Outer body panels and mild steel sections
   f. Inner structural members and high strength steel components
   g. Leaks and noises

8. Suspension and Steering Systems

   a. Checking and repairing suspension systems
   b. Checking and repairing steering systems
   c. Checking wheel bearings
   d. Balancing tires

9. Plastic and Fiberglass Repair

   a. Fiberglass panels
   b. Soft plastic components
   c. Hard plastics
   d. Vinyl components

10. Refinishing

   a. Cleaning surface
   b. Sanding surface
   c. Removing paint from surface
   d. Masking vehicles
   e. Applying undercoat and topcoat materials
   f. Preparing for delivery
   g. Cleaning interior of car
   h. Installing stripes and decals

11. Estimates and Repair Orders

   a. Analyzing collision damage and writing estimates
   b. Writing repair orders

12. Electrical

   a. Servicing auto battery
   b. Testing and repairing electrical circuits

13. Cooling System

   a. Testing
   b. Repairing

14. Automotive Air Conditioning System

    a. Testing
    b. Repairing

15. Leadership

    a. Characteristics of a good leader
    b. Importance of parliamentary procedures
    c. Correct use of 17 parliamentary procedures
    d. VICA participation

Auto Mechanics Outline

1. Work Habits and General Competencies

    a. Oral and written instructions
    b. Work habits
    c. Positive attitude towards safety
    d. Communicate ideas
    e. Occupational opportunities and requirements

2. Introduction to Shop Practices

    a. Identification of tools and materials
    b. Processes and usage
    c. Safe shop procedures
    d. Maintenance of tools and equipment

3. Automotive Maintenance

    a. Identification of maintenance problems
    b. Lubrication and filtration
    c. Cooling system maintenance
    d. Tire, wheels, and steering maintenance
    e. Electrical system maintenance

4. Engines

    a. Internal combustion engines
    b. Spark ignition and compression engines
    c. Minor/major repair to engines
    d. Overhaul of engines

5. Cooling Systems

    a. Identification and function
    b. Diagnosing malfunctions
    c. Service, remove, repair, and replace

6. Air Conditioning Systems

   a. Identification and function
   b. Theory and operation
   c. Diagnosing and troubleshooting
   d. Install, service, and repair

7. Fuel Systems

   a. Identification and function
   b. Theory of carburetion and fuel injection
   c. Malfunctions
   d. Service, remove, repair, or replace

8. Electrical Systems

   a. Identification and function
   b. Electrical and electronic theory
   c. Use equipment to diagnose and to correct problems
   d. Service, remove, repair, or replace

9. Ignition Systems

   a. Identification and Function
   b. Theory of electricity and electronics
   c. Use equipment to diagnose and correct problems
   d. Service, remove, repair, or replace

10. Exhaust and Emission Control

   a. Identification and function
   b. Theory of pollution control systems and environmental hazards
   c. Use equipment to diagnose and correct problems
   d. Adjust, service, repair, or replace
   e. Identification of components to be inspected, tested, adjusted, repaired, or replaced
   f. Theory of operation
   g. Fuel electrical ignition and emission control problems
   h. Adjust, service, repair, and replace fuel, electrical, mechanical components

11. Brake System

   a. Identification and function
   b. Braking system problems
   c. Adjust, service, repair, or replace

12. Steering and Suspension

    a. Identification of components and types
    b. Steering and suspension geometry
    c. System problems
    d. Adjust, remove, repair, or replace

13. Clutch and Transmissions

    a. Types and functions
    b. Theory of manual and hydraulic clutches and automatic transmissions
    c. Diagnosing problems
    d. Adjust, remove, repair, or replace

14. Differential and Rear Axle

    a. Identification and function
    b. Theories of gears, gearing, differentials, and limited slip drives
    c. Inspect, measure, adjust, repair, or replace

15. Leadership

    a. Characteristics
    b. Importance of parliamentary procedure
    c. Correct use of 17 parliamentary procedures
    d. VICA participation

Cabinetmaking Outline

1. Orientation

    a. Nature of cabinetmaking
    b. Occupational outlook of the trade

2. Materials

    a. Cabinetmaking materials identification
    b. Cabinetmaking materials selection

3. Planning and Design

    a. Basic cabinetry design
    b. Plans and estimates

4. Tools and Equipment

    a. Basic hand tools and their use
    b. Use of stationary power equipment

    c. Use of portable power tools
    d. Related tools and equipment

5. Safety

    a. Personal safety
    b. General work safety

6. Construction and Installation

    a. Techniques
    b. Installation

7. Fasteners, Adhesives, and Hardware

    a. Installation procedures for fasteners and hardware
    b. Working characteristics of adhesives

8. Finishing

    a. Preparing surfaces
    b. Wood stains
    c. Characteristics of techniques

9. Leadership

    a. Characteristics of a good leader
    b. Importance of parliamentary procedure
    c. Correct use of 17 parliamentary procedures
    d. VICA participation

Carpentry Outline

1. Hand Tools

    a. Identification of hand tools
    b. Use of hand tools

2. Power Tools

    a. Identification of power tools
    b. Use of power tools

3. House Plan Interpretation

    a. Interpret a print
    b. Bill of material
    c. Building codes
    d. Material estimate

4. Building Materials

   a. Identification of plywoods, hardwoods, softwoods, and nonwood materials
   b. Grading and classification of plywoods, hardwoods, and softwoods

5. Building Layout

   a. Leveling
   b. Instrument identification

6. Footings and Foundations

   a. Building lines and grade levels
   b. Footing design and nomenclature

7. Framing

   a. Types of floor framing
   b. Types of girders, joist beams, and other support members
   c. Construction of framing openings
   d. Wall and ceiling framing
   e. Principles of roof framing

8. Roofing

   a. Materials for sloping roofs
   b. Roofing terminology
   c. Installation of building paper and asphalt shingles

9. Doors and Windows

   a. Understanding types, sizes, and standards of window construction
   b. Understanding types, sizes, and standards of door construction

10. Finishing

   a. Identification of exterior wall finish
   b. Thermal and sound insulation
   c. Identification of interior wall and ceiling finish
   d. Installation of floor and coverings

11. Stair and Cabinet Construction

   a. Stair construction
   b. Cabinet construction

12. Careers in Carpentry

    a. Opportunities and training
    b. Personal qualifications

13. Leadership

    a. Characteristics
    b. Importance of parliamentary procedure
    c. Correct use of 17 parliamentary procedures
    d. VICA participation

Cosmetology Outline

1. Work Habits and General Competencies

    a. Oral and written instructions
    b. Work habits and behavior
    c. Positive attitude towards safety
    d. Communicating ideas
    e. Occupational opportunities and requirements

2. Terminology, Organization, and Technical Knowledge

    a. State laws, history, and regulations
    b. Lab safety procedures
    c. Sterilization, sanitation, bacteriology, and first aid processes
    d. Proper attitude and personality
    e. Related cosmetology professions

3. Scalp and Hair Care

    a. Analyzing scalp and hair
    b. Scientific brushing
    c. Correct shampooing skills
    d. Application of hair rinses and conditioners

4. Hair Styling

    a. Basic wet hairstyling techniques
    b. Proper pressing and thermal curling techniques

5. Facial Shapes and Profiles

    a. Body structure
    b. Hairstyling skills for body structure

6. Hair Cutting and Shaping

   a. Haircutting shapes and implements
   b. Demonstrate haircut and shaping

7. Wiggery

   a. Fibers and construction
   b. Styling and cleaning

8. Permanent Waving

   a. Products and implements
   b. Analyzation

9. Chemical Relaxing

   a. Hair relaxing products
   b. Analyzing hair

10. Hair Coloring and Lightening

    a. Products for coloring, lightening, and conditioning tint-backs
    b. Coloring hair by temporary, semipermanent, and permanent methods

11. Manicuring and Pedicuring

    a. Nail diseases and disorders
    b. Proper tools and supplies

12. Facials and Make-up

    a. Facial treatments
    b. Proper skills for facial procedures

13. Salon Planning and Management

    a. Site selection
    b. Layout of salon
    c. Taxes and laws

14. Leadership

    a. Characteristics
    b. Importance of parliamentary procedure
    c. Correct use of 17 parliamentary procedures
    d. VICA participation

Diesel Mechanics Outline

1. Orientation
    - a. Occupational outlook
    - b. Place of employment
    - c. Task in diesel workshop

2. Shop Safety
    - a. Select terms associated with shop safety
    - b. Safety rules
    - c. Shop rules and regulations
    - d. Classes of fire
    - e. Types of fire extinguishers

3. Basic Shop Tools
    - a. Identify types of hammers
    - b. Identify types of pliers
    - c. Identify types of wrenches
    - d. Identify types of cold chisels
    - e. Identify types of punches
    - f. Identify types of files
    - g. Identify types of pullers
    - h. Identify types of feeler gauges
    - i. Identify types of micrometers

4. Introduction to Test Equipment and Service Tools
    - a. Identify test equipment and service tools
    - b. List uses of test equipment and service tools

5. Fasteners
    - a. List and describe qualities of typical fasteners
    - b. Identify typical belthead styles
    - c. Identify typical nuts
    - d. Identify methods for removing and placing nuts and bolts

6. Engine Operating Principles
    - a. Identify terms associated with engine operations principles
    - b. Identify basic parts of a diesel engine
    - c. Describe two and four stroke engines

7. Diesel Fuels

    a. Combustion cycle
    b. Crude oil by-products
    c. Types of diesel exhaust smoke
    d. Rules for storage of diesel fuels

8. Engine Lubricants

    a. Discuss engine oil and oil additives
    b. List oil ratings and classifications
    c. Rules for selection of oil and oil additives

9. Bearings

    a. Types of bearings
    b. Function of bearings
    c. Lead forces
    d. Properties of bearings
    e. Bearing failure

10. Seals

    a. Types and locations of seals
    b. Seal failure

11. Cylinder Head Assembly

    a. Major parts
    b. List terms associated with cylinder assembly
    c. Valve assembly
    d. Valve arrangement
    e. Cylinder head disassembly and reassembly

12. Piston and Connecting Rod Assemblies

    a. Piston
    b. Connecting rods
    c. Rings

13. Camshafts, Gears Train, and Engine Timing

    a. List terms associated with camshafts and gears
    b. Discuss methods of removal and replacement of camshafts and gears

14. Frames and Cylinder Blocks

    a. Typical frame design
    b. Through-bolts on A-frame design engine

15. Cooling System
    a. List functions of cooling system
    b. Identify component parts of the cooling system

16. Air Intake and Exhaust System
    a. List parts of air intake system
    b. List parts of exhaust system

17. Starting System
    a. List functions of the fuel injection system
    b. List major parts of the fuel injection system

18. Leadership Development
    a. Characteristics of a good leader
    b. Parliamentary procedure
    c. VICA participation

Electrical Trades Outline

1. Safety
    a. Identify safe work habits
    b. Practice safe work habits

2. Personal Development
    a. Develop attributes
    b. Pursue VICA achievement degree

3. Electrical Tools
    a. Tool identification
    b. Use of tools

4. Electrical Fundamentals
    a. Terms used in electrical trades
    b. Ohm's Law
    c. Electrical measurements

5. Electrical Circuits
    a. DC resistive circuits
    b. AC resistive circuits
    c. Reactive circuits
    d. Polyphase systems

6. Magnetism

    a. Magnetic Law (Lenz)
    b. Electromechanical EM devices

7. Motors and Generators

    a. Principles of electric motors and generators
    b. Motor controls

8. Electrical Appliances

    a. Scope of appliance repair field
    b. Electrical devices
    c. Appliance servicing techniques

9. Electrical Blueprint Reading

    a. Conventional and electrical building plan symbols
    b. Electrical requirements for building plans
    c. Layout and sketch of electrical circuits

10. National Electrical Code (NEC)

    a. Purpose and developer of the NEC
    b. Electrical wiring requirements
    c. Electrical requirement analysis

11. Residential Wiring

    a. Plans for electrical requirements
    b. Electrical loads
    c. Branch circuits and feeder service
    d. Typical installation estimate
    e. Residential electrical installation

12. Commercial Installations

    a. NEC special requirements
    b. Motor loaded branch circuit

13. Industrial Installations

    a. NEC special requirements
    b. Branch load raceway size

14. Low Voltage Installations

    a. Low voltage conditions
    b. Low voltage circuit installation

15. Leadership

    a. Characteristics
    b. Importance of parliamentary procedure
    c. Correct use of 17 parliamentary procedures
    d. VICA participation

Electronics Outline

1. Orientation

    a. Student expectation
    b. Safe working habits
    c. Hand tools

2. Basic Principles of Electricity/Electronics

    a. Law of charges
    b. Source of electricity

3. Fundamentals of Direct Current

    a. Direct current circuit
    b. Solering procedures
    c. Different numbering systems
    d. Resistance associated with Ohm's Law
    e. Measuring voltage
    f. Measuring current
    g. Power related to Ohm's Law
    h. Conductors and insulators
    i. Ohm's Law
    j. Voltage, current, and resistance in series circuits
    k. Voltage, current, and resistance in parallel circuits
    l. Simplifying series and parallel circuits
    m. Magnetic fields
    n. Motor torque, efficiency, and power

4. Fundamentals of Alternating Current

    a. Nature and alternating currents
    b. Principles of generation of AC
    c. Inductance
    d. Inductive reactance
    e. Calculations and statements for capacitance
    f. Measure for RC time constants
    g. Capacitive reactance
    h. RCL circuits (series)
    i. RCL circuits (parallel)

5. Applying for a job

6. Semiconductor Devices

    a. Terms and processes
    b. Skills associated with rectifiers
    c. Functions and applications filter circuits
    d. Functions of special semiconductor diodes
    e. Bi-polar transistors

7. Transistor Circuit Operation and Applications

    a. Test transistor circuits
    b. Transistor amplifier circuit operations
    c. Operational amplifier circuits

8. Logic Devices and Circuits

    a. Test logic devices
    b. Identify logic systems
    c. Special semiconductor devices and circuits

9. Transmitter and Receiver Circuits

    a. Oscillator circuits
    b. Transmitters and transmitting systems
    c. Receiver circuits
    d. Electron tubes

10. Leadership

    a. Characteristics
    b. Importance of parliamentary procedure
    c. Correct use of 17 parliamentary procedures
    d. VICA participation

Furniture Outline

1. Orientation

    a. Occupational outlook of the trade
    b. Furniture history

2. Mathematics for Furniture Making

    a. Adding and subtracting common fractions
    b. Multiplying and dividing common fractions
    c. Decimal fractions and conversions
    d. Board foot calculation

3. Furniture Periods and Styles

   a. General furniture technology
   b. History and identification of furniture
   c. Furniture Design

4. Furniture Woods

   a. Types of woods
   b. Growth of wood and defects
   c. Grading and ordering lumber
   d. Plywood

5. Wood Fastening

   a. Wood joints and cuts
   b. Metal fasteners
   c. Glues, clamps, and gluing

6. Preparation for Construction

   a. Drawing equipment
   b. Making drawings
   c. Material bills, procedures, and lumber selection

7. Hand Tools

   a. Layout and measuring tools
   b. Laying out stock
   c. Drilling and boring tools
   d. Uses of drilling and boring tools
   e. Scraping and shaving tools
   f. Uses of scraping and shaving tools
   g. Handsaws
   h. Squaring stock
   i. Pounding and driving tools
   j. Sharpening hand tools

8. Portable Tools

   a. Portable drills
   b. Portable sanders
   c. Portable circular saws
   d. Portable sabre saws
   e. Portable routers and laminate trimmers

9. Stationary Power Tools

   a. Drill press
   b. Mortisers
   c. Scroll saws
   d. Band saw
   e. Table saw (circular saw)
   f. Radial arm saws
   g. Planing machines
   h. Sanders
   i. Shapers
   j. Wood lathes

10. Furniture Construction

   a. Box, case, and carcass construction
   b. Table and chair construction
   c. Cabinet and furniture hardware

11. Special Construction

   a. Bending wood
   b. Veneering and inlaying
   c. Built-in cabinets

12. Furniture Finishing

   a. Preparing wood for finishing
   b. Finishing by hand
   c. Spray finishing
   d. Finishes

13. Safety

   a. Personal safety
   b. Job safety

14. Human Relations and Leadership

   a. Job advancement
   b. Free enterprise system
   c. Becoming a good leader
   d. Leadership development

15. Leadership

   a. Characteristics
   b. Importance of parliamentary procedure
   c. Correct use of 17 parliamentary procedures
   d. VICA participation

Graphics and Industrial Communications Outline

1. Work Habits and General Competencies

   a. Performing job tasks
   b. Safety procedure in performing tasks
   c. Good quality of work
   d. Working cooperatively
   e. Work attitudes and behaviors
   f. Working with materials, tools, and equipment
   g. Work area
   h. Personal hygiene and appearance
   i. Communicating ideas
   j. Worker productivity and consumer prices

2. Introduction to Graphic Communication

   a. Historical development of printing process
   b. Major equipment and areas
   c. Occupations and job descriptions
   d. Safety procedure
   e. Legal restrictions of copying
   f. Layout area, tools, and instruments
   g. Basic design principles
   h. Scaling a photograph
   i. Paste-up for a multicolor line reproduction
   j. Copy for halftones, line/halftone combinations, outline halftones, and reverses
   k. Darkroom floor plan
   l. Darkroom set up and line negative
   m. Characteristics of reproduction films
   n. Halftone with dot range
   o. Darkroom safety procedures
   p. Tools and materials of the stripper
   q. Registered flat for simple one-color line and halftone jobs
   r. Registered flat for multi-colored line job
   s. Registered flat for multi-colored job with duotone
   t. Flat production
   u. Flat proofing
   v. Stripping registered four color processes
   w. Materials and processes of the platemaker
   x. Offset plate
   y. Parts of an offset press
   z. Press set up for one-color job
   aa. Press set up for multi-color job
   bb. Press maintenance and adjustments procedures
   cc. Press safety procedures
   dd. Bindery tools, equipment, and processes
   ee. Bindery operations
   ff. Major types of paper
   gg. Die cutting, scoring, and perforating

3. Leadership

   a. Characteristics
   b. Importance of parliamentary procedure
   c. Correct use of 17 parliamentary procedures
   d. VICA participation

Industrial Cooperative Training Outline

1. Orientation

   a. History of vocational education
   b. Description of ICT
   c. Characteristics of VICA
   d. Legal aspects of employment
   e. Social Security Services
   f. Pay voucher deductions

2. Job Related Information

   a. Technical information
   b. Satisfactory employment

3. Employment

   a. Factors that affect working environment
   b. Procedures in securing employment
   c. Success and achievement
   d. Jobs compatible with lifestyle

4. Industrial Safety and First Aid

   a. Importance of safety and accident prevention
   b. Hazards of fires in industry
   c. Role of Safety and Health Administration
   d. Developing safe working conditions
   e. Basic principles of first aid

5. American Industrial System

   a. Basic characteristics of the economic system
   b. Factors that affect American business and industry
   c. Economic principles of scarcity
   d. Effects of technological advances
   e. Organized labor
   f. Factors of starting your own business

6. Supervision

   a. Fundamentals of leadership
   b. Fundamentals of followership
   c. Role of first-line supervisor

7. Leadership

   a. Characteristics
   b. Importance of parliamentary procedure
   c. Correct use of 17 parliamentary procedures
   d. VICA participation

Machine Shop Outline

1. Orientation to Machine Trades

   a. Identification
   b. Requirements

2. Safety and Shop Practices

   a. Work habits and behavior
   b. Attitude towards safety
   c. Accident prevention and cause
   d. Fire prevention and cause
   e. Procedures to follow in case of accidents
   f. Identification of first aid procedures
   g. Practices used when handling oils, acids, and flammable gases

3. Machine Maintenance

   a. Identification of problems
   b. Types of lubrication systems and components
   c. Routine maintenance

4. Mathematics

   a. Basic and advanced operations
   b. Basic and advanced algebra
   c. Basic and advanced geometry
   d. Basic and advanced trigonometry

5. Blueprint Reading and Sketching

   a. Determination of dimensions, specifications, and shop procedures by reading a blueprint
   b. Specifications

6. Measuring

   a. Identification and description of semiprecision, precision, and metric measuring tools
   b. Demonstration of use of tools
   c. Use of transfer tools
   d. Use of precision measuring tools

7. Layout and Inspection

   a. Procedure for layout of work pieces
   b. Inspection of materials for specifications
   c. Characteristics and properties used
   d. Shapes of ferrous and nonferrous materials
   e. Types of cutting fluids and application

8. Bench Work

   a. Identification, purpose, and application of power tools
   b. Safety hazards
   c. Operation of hand and portable power tools
   d. Use of specialized hand tools

9. Fasteners

   a. Functions of common fasteners
   b. Identification of nonhardware fastening systems

10. Sawing

   a. Identification of cutoff saws and description
   b. Construction, description, and application of saws
   c. Maintenance procedures

11. Drilling

   a. Identification, characteristics, procedures
   b. Tool holding devices

12. Turning

   a. Identification and processes
   b. Construction of engine lathe
   c. Construction, function of turret lathe

13. Shaping and Planing

   a. Identification, application
   b. Components and functions of shaper, planer

14. Milling

    a. Types of milling machines
    b. Components/accessories of horizontal milling machine
    c. Components/accessories of vertical milling machine.

15. Grinding

    a. Identification of parts and pedestal grinders
    b. Identification of precision grinding processes
    c. Components and accessories of surface grinder
    d. Safe performance operation
    e. Components and functions of centerless grinder
    f. Set up and performance
    g. Components and function of cylindrical grinder
    h. Performance of operations
    i. Components, functions of tool and cutter grinder
    j. Safe set up and use of tool and cutter grinder
    k. Lapping and performing lapping operations
    l. Honing operations

16. Special Processes

    a. Function and use of a profiler or pantograph
    b. Types of numerical control systems
    c. Numerical control system
    d. Use of electrical discharge machine

17. Metallurgy

    a. Application, purpose of heat treatment process
    b. Purpose of hardness testing, tensile testing

18. Welding

    a. Identification of oxyacetylene welding
    b. Arc welding joining processes

19. Communications

    a. Listening skills
    b. Oral instructions in performing job task

20. Leadership

    a. Characteristics of a good leader
    b. Importance of parliamentary procedure
    c. Correct use of 17 parliamentary procedures
    d. VICA participation

Marine Occupations Outline

1. Safety

    a. Safety equipment
    b. First aid
    c. Safety aboard a vessel
    d. Weather

2. Boating Skills

    a. Types and designs
    b. Anchoring techniques
    c. State/Federal regulations
    d. Navigation
    e. Marline spike skills

3. Harvesting Equipment

    a. Net and trap
    b. Net repairs

4. Fishing Methods

    a. Types of fish
    b. Recognition of species development

5. Engines (marine)

    a. Gasoline
    b. Diesel
    c. Terms

6. Oceanography

    a. Topography
    b. Currents
    c. Waves
    d. Tides
    e. Beaches
    f. Salinity
    g. Equipment
    h. Marine life groups

7. Leadership Development

    a. Characteristics of a good leader
    b. Parliamentary procedure
    c. VICA participation

Masonry Outline

1. Orientation
    a. Identification of brick
    b. Manufacturing process

2. Tools and Equipment
    a. Hand tools
    b. Power tools
    c. Related equipment

3. Safety
    a. Personal and job safety
    b. Rules and descriptions of clothes to be worn

4. Materials
    a. Mortars
    b. Masonry units

5. Human Relations and Leadership
    a. Job advancement
    b. Free enterprise system
    c. Becoming a good leader

6. Related Information
    a. Basic trade arithmetic
    b. Basic blueprint reading
    c. Measuring
    d. Builder's level

7. Shop
    a. Spreading mortar and laying brick to a line
    b. Wall layout and construction
    c. Chimneys and fireplaces
    d. Cut stone
    e. Related layout and construction
    f. Basic gas cutting
    g. Basic arc welding

8. Cleaning, Painting, and Caulking
    a. Procedure
    b. Identification

9. Leadership

    a. Characteristics of a good leader
    b. Importance of parliamentary procedure
    c. Correct use of 17 parliamentary procedures
    d. VICA participation

Plumbing Outline

1. Orientation

    a. Nature of the trade
    b. Introduction to residential plumbing

2. Business Relationships

    a. Employer/employee relations
    b. Employee/customer relations

3. Safety

    a. Personal safety
    b. Safety color coding
    c. Fire safety
    d. Procedures in case of accident

4. Applying for a Job

    a. Locating a job
    b. Making an application
    c. Interview techniques

5. Identification of Tools and Equipment

    a. Use of hand tools and equipment
    b. Measurement
    c. Care of tools and equipment

6. Power Tools

    a. Selecting the proper tool
    b. Power tool safety
    c. Power tool maintenance

7. Use of Equipment

    a. Acetylene equipment
    b. Excavating equipment
    c. Testing equipment

8. Designing a Tool Box

   a. Company provided tools
   b. Employee provided tools
   c. Make a tool list for the trade

9. Vehicle and Inventory

   a. Maintenance of vehicle
   b. Vehicle inventory

10. Reading Job Plans

   a. Symbols in print reading
   b. Site plans
   c. Identifying materials from job prints

11. Isometric Sketching

   a. Sketching plumbing layouts
   b. Making a materials list

12. Estimating

   a. Bathroom layout
   b. Other piping layouts
   c. Change orders

13. Plumbing Code

   a. Legislation
   b. Inspection
   c. Application

14. Metric System

   a. Conversions--English to metric
   b. Demonstrate ability to use metrics

15. Drainage Systems

   a. Identification of parts
   b. Safety
   c. Waste and vent
   d. Installation

16. Water Supply System

    a. Components
    b. Types of piping
    c. Rough in to fixtures
    d. Testing for leaks

17. Joining Piping System

    a. Different types
    b. Uses of each
    c. Installation using combination types

18. Pipe Fittings

    a. Types
    b. Selection
    c. Installation

19. Residential Piping

    a. Selection
    b. Code requirements

20. Private Water Systems

    a. Pumps and controls
    b. Installation

21. Septic and Field Lines

    a. Operation of septic system
    b. Components
    c. Building codes
    d. Maintenance of system

22. Water Treatments

    a. Water analysis
    b. Purification systems
    c. Preparing a water sample

23. Residential Gas System

    a. Natural and manufactured gas
    b. Piping
    c. Installation and testing

24. Installation of Fixtures and Appliances

    a. Spa and sprinkler systems
    b. Sprinkler system design

25. Valves and Faucets

    a. Identification and selection
    b. Installation
    c. Maintenance

26. Drainage Connections

    a. Fixture trap installations
    b. Closet flange installations

27. Fixtures and Appliances

    a. Residential applications
    b. Installation of residential fixtures and appliances

28. Water System Maintenance and Repair

    a. Water system repair
    b. Fixtures repair

29. Drainage System Repair

    a. Clearing drainage systems
    b. Safety

Sheet Metal Outline

1. Orientation

    a. Historical significance
    b. Sheet metal terms
    c. Job opportunities
    d. Job attitudes

2. Safety

    a. Safety terms
    b. Housekeeping
    c. Tools and equipment

3. Mathematics

    a. Measuring
    b. Geometric terms
    c. Scaled drawings

4. Materials

    a. Sheet metal terms
    b. Types of metals

5. Hand Tools

    a. Drawing equipment
    b. Types of hand tools
    c. Shaping tools
    d. Safety

6. Concepts

    a. Seams, locks, edges, and notches
    b. Fasteners and hardware
    c. Methods of development
    d. Geometric constructing
    e. Soldering
    f. Grinding/polishing

7. Leadership Development

    a. Characteristics of a good leader
    b. Parliamentary procedure
    c. VICA participation

Small Gasoline Engines Outline

1. Orientation

    a. Job opportunities
    b. Job attitudes
    c. Terms

2. Safety

    a. Safety terms
    b. Housekeeping
    c. Tools and equipment

3. Tools

    a. Hand tools
    b. Maintenance
    c. Safety

4. Mathematics

    a. Measuring
    b. Terms/calculations
    c. Measuring tools

5. Engine Identification

    a. Inspection
    b. Types

6. Engine Principles

    a. Energy
    b. Horsepower
    c. Torque
    d. Cubic inch displacement
    e. Calculation of 2/4 stroke engines

7. Basic Electricity

    a. Magnetism/electricity
    b. Circuits
    c. Trouble shooting
    d. AC/DC current

8. Systems

    a. Ignition
    b. Trouble shooting
    c. Charging systems
    d. Starting
    e. Lubrication
    f. Cooling systems
    g. Fuel systems
    h. Exhaust systems

9. Leadership Development

    a. Characteristics of a good leader
    b. Parliamentary procedure
    c. VICA participation

Tailoring Outline

1. Orientation

    a. Job opportunities
    b. Job attitudes
    c. Terms

2. Safety
    a. Safety terms
    b. Housekeeping
    c. Tools and equipment

3. Tools and Equipment
    a. Hand tools
    b. Maintenance
    c. Safety

4. Techniques
    a. Hand sewing
    b. Machine sewing
    c. Pressing
    d. Layout and cutting
    e. Alterations
    f. Types of clothing
    g. Fabrics

5. Sewing
    a. Industrial
    b. Personal

6. Leadership Development
    a. Characteristics of a good leader
    b. Parliamentary procedures
    c. VICA participation

Technical Drafting Outline

1. Communication
    a. Architectural terms
    b. Architectural synonyms

2. Equipment
    a. Use of drafting equipment
    b. Identification of equipment and supplies

3. Working Drawing, Sectional and Auxiliary Views, and Pictorial Drawings
    a. Work drawings
    b. Section, auxiliary, and pictorial views

4. Design procedures

   a. Proper drafting techniques
   b. Architectural drawings
   c. Architectural schedules
   d. Architectural models
   e. Cost analysis
   f. Machine design drawings

5. Concepts

   a. Technical and mathematical computations
   b. Basic architectural concepts
   c. Basic machine design concepts

6. Leadership

   a. Characteristics of a good leader
   b. Importance of parliamentary procedure
   c. Correct use of 17 parliamentary procedures
   d. VICA participation

Textiles Outline

1. Terminology, Organization, and Technical Information

   a. Textile stock
   b. Textile dyes and chemicals
   c. Quality control testing equipment reports
   d. Training manuals
   e. Plant manufacturing layout
   f. Plain weave pattern, twill weave pattern, and satin weave pattern
   g. Jersey knit structure, rib knit structure, and purl knit structure
   h. Yarn and fabric manufacturing terms and dyeing and finishing terms
   i. Textile products in apparel, home furnishings, and industrial markets
   j. Work orders and requisitions
   k. Career opportunities

2. Tools, Equipment, and Supplies

   a. Yarn reel and scales
   b. Pick glass
   c. Reed hook and weaver's scissors
   d. Time study
   e. Lab dyeing kits
   f. Yarn fabric and dyeing supplies

3. Manufacturing Processes and Operation

   a. Tending and operative carding machine
   b. Tending and operative spinning machine
   c. Jobs pertaining to yarn preparation
   d. Tending and operative weaving machine
   e. Tending and operative knitting machine
   f. Maintenance and repair of textile machinery
   g. Analyzing woven, knitted, and tufted swatches of fabric
   h. Physically testing textile yarns
   i. Chemically testing textile yarns
   j. Physically testing textile fabrics
   k. Chemically testing textile fabrics
   l. Jobs that depend on textile industry
   m. Converting fiber to fabric
   n. Textile calculations
   o. Quality control standards
   p. Defects in textile stock
   q. Safety rules
   r. Accident classification
   s. Plant organization chart

4. Program Structure, Attitudes, and Employer/Employee Relations

   a. Course content outline
   b. Awareness of positive attitudes
   c. Identification of employer/employee relations

5. Leadership

   a. Characteristics of a good leader
   b. Importance of parliamentary procedure
   c. Correct use of 17 parliamentary procedures
   d. VICA participation

Upholstery Outline

1. Orientation

   a. Job opportunities
   b. Upholstery terms
   c. Job attitudes

2. Safety

   a. Safety terms
   b. Housekeeping
   c. Tools and equipment

3. Mathematics

    a. Measuring
    b. Material estimation

4. Furniture Styles

    a. Characteristics
    b. Outside influences

5. Materials

    a. Components
    b. Structural techniques
    c. Adhesive qualities
    d. Types

6. Tools and Equipment

    a. Hand tools
    b. Sewing machines
    c. Steam machines
    d. Staple guns
    e. Safety

7. Processes

    a. Stripping
    b. Frames
    c. Refinishing
    d. Webbing
    e. Springs
    f. Padding
    g. Covers
    h. Tufts

8. Leadership Development

    a. Characteristics of a good leader
    b. Parliamentary procedure
    c. VICA participation

Welding Outline

1. Glossary

    a. Welding vocabulary
    b. Welding definitions

2. Safety

    a. Safety precautions
    b. Safe equipment handling

3. Oxyacetylene Processes

    a. Oxyacetylene torch
    b. Oxyacetylene welding
    c. Braze welding

4. Metal Arc Welding

    a. Principles
    b. Procedures

5. Weld Testing

    a. Prepare coupons
    b. Test coupons

6. Gas Tungsten Arc Welding

    a. Principles
    b. Functions

7. Gas Metal Arc Welding

    a. Principles
    b. Functions

8. Pipe Welding

    a. Prepare pipe workpiece
    b. Tack pipe workpiece

9. Leadership

    a. Characteristics of a good leader
    b. Importance of parliamentary procedure
    c. Correct use of 17 parliamentary procedures
    d. VICA participation

APPENDICES

APPENDIX A

House Bill 1567*

A BILL TO BE ENTITLED AN ACT TO ENACT THE ELEMENTARY AND SECONDARY SCHOOL REFORM ACT OF 1984.

The General Assembly of North Carolina enacts:

Section 1. This act may be referred to as the "Elementary and Secondary School Reform Act of 1984."

Section 2. G.S. 115C-81(a) is amended by deleting the first paragraph and substituting the following:

"Standard Course of Study. It is the policy of the State of North Carolina to insure a quality education to every child residing in North Carolina. To this end, the General Assembly directs the State Board of Education to develop a standard course of study to be offered to every child in North Carolina public schools and to submit the proposed standard course of study to the General Assembly by October 15, 1984.

The standard course of study shall reflect a rigorous academic course of study stressing mastery of integrated knowledge based on mastery of competencies in the basic skill areas rather than the study of isolated disciplines. To this end, the State Board of Education is directed to undertake a statewide audit of current curricula and to refine the curricula as required to comply with this policy. The standard course of study:

1. shall stress mastery of integrated knowledge;

2. should provide students with the specific competencies needed to gain employment or to continue their education;

3. should provide students with the skills necessary to cope with contemporary society;

4. shall contain a vocational education component designed to meet the State's and local anticipated career training needs;

5. shall provide for a program of continuous learning based upon the individual child's need, interest, and stages of development, so that the program has a nongraded structure of organization;

6. shall set forth what subjects shall be taught in each grade, and outline the basal and supplementary books on each subject to be used in each grade;

7. shall include a core curriculum for all students plus additional elective curriculum choices to meet the varied needs and interests of students;

8. shall establish a minimum length of the instructional day;

9. shall prescribe standards for student performance and promotion and may consider appropriate levels at which remediation should begin; and

10. shall describe appropriate class size for each course required by the standard course of study; staffing levels to support the standard course of study, and may include minimum staffing for schools, regardless of size, where such schools are determined to be essential to serve pupils located in isolated geographic areas; minimum facility requirements for the standard course of study; minimum material requirements for the standard course of study; and such other information the Board finds necessary to enable the General Assembly to allocate appropriate resources to implement the plan."

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*Includes only that portion of HB 1567 addressed by the Basic Education Program for North Carolina's Public Schools, the North Carolina Standard Course of Study, and the North Carolina Competency-Based Curriculum.

APPENDIX B

16 NCAC 2E.0103; STANDARD COURSE OF STUDY: POLICIES

(a) Definitions. As used in this Rule:
  (1) "Standard Course of Study" means the program of course work for each of the various subjects taught in the elementary and secondary schools of the state, together with competency goals and performance indicators, as defined in (4) and (5) of this subsection, which have been adopted by the state board pursuant to G. S. 115C-81 (a) and subsection (b) of this Rule.
  (2) "Curriculum guide" means a document prepared by the State Department of Public Instruction for each subject or area of study listed in the Standard Course of Study, including suggestions as to suitable instructional aids, textbooks and supplementary resources, learning experiences and teaching methods.
  (3) "Course unit" means a minimum of 150 clock hours of instruction. Short courses will be credited in an amount corresponding to the fractional part of a total unit.
  (4) "Competency goals" means the ends toward which student learning is directed.
  (5) "Performance indicators" means quantitative measures of progress toward competency goals.

(b) The state board shall adopt and periodically review the Standard Course of Study, upon recommendation of the State Superintendent and pursuant to a public hearing and any changes the board deems appropriate. The Standard Course of Study shall be published by the state board. Copies of the Standard Course of Study and the curriculum guides may be obtained from the Department of Public Instruction, 116 W. Edenton Street, Raleigh, N. C. 27611.

(c) The Standard Course of Study shall include, at a minimum, a kindergarten through 12th grade program of studies in the following areas:
  (1) citizenship, including the social studies-economics, history, government, sociology and human relations;
  (2) communications, including foreign languages, educational media, and all phases and applications of English-language arts;
  (3) cultural arts, including the fine and performing arts, recreation and avocations, addressed to both performance and consumer objectives;
  (4) healthful living, including personal and community health, physical education, recreation, and safety;
  (5) mathematics, including computational, problem solving, and consumer skills and substantive advanced elective sequences;
  (6) science, including the basic study of all living and nonliving things as well as advanced elective sequences; and

(7) vocational, including a developmental design, moving from occupational exploration in the middle grades, to selective specialization in the senior high school, as set out in the state Master Plan for vocational education.

(d) The development of subject and course content in the study areas listed in (c) of this Rule shall include, as appropriate for the various grade levels, the study of Americanism, the government of the State of North Carolina, the government of the United States, fire prevention, harmful or illegal drugs including tobacco and alcohol, and the free enterprise system.

(e) The Standard Course of Study shall be implemented in the kindergarten through eighth grades through an appropriate developmental program in each study area for individual pupils. Summer school for these grades is considered an integral part of the regular school term. The Standard Course of Study shall be implemented in the 9th through 12th grades through a program of representative course offerings in each study area.

(f) Graduation Requirements

(1) In addition to the requirements of 16 NCAC 2G.0702, students graduating during or after the 1986-87 school year must successfully complete 20 courses units in grades 9 through 12 to be graduated from high school. These course units must include the following:

- (A) four course units in English;
- (B) two course units in mathematics;
- (C) two course units in social studies; one unit in government and economics, and one unit in United States history;
- (D) two course units in science, one unit in a life science or biology, and one unit in one of the physical sciences;
- (E) one course unit in physical education and health;
- (F) nine course units to be determined by the local education agency. These may be undesignated electives or designated from the study areas described in subsection (c) of this Rule.

(2) Course work successfully completed in the ninth grade at a school system where course units are not awarded in the ninth grade shall be deemed to satisfy the requirements of (1) of this subsection.

(3) Course work successfully completed by students in grades 9 through 12 at a summer school session may be used to satisfy the requirements of (1) of this subsection. Course units so taken shall be earned in the same manner as otherwise provided in this Rule, except that for students repeating courses in summer school the principal shall determine the hours of instruction required to be repeated.

(4) Course work successfully completed by students in grades 9 through 12 at an off-campus institution may be used to satisfy the requirements of (1) of this subsection. No high school may approve enrollment in post-secondary institutions during the regular school year in excess of five percent of its enrollment in grades 10-12 except as approved by the State Board of Education. Enrollment under this policy in community college institutions shall be in accordance with 16 NCAC 2E.0301.

History Note: Statutory Authority G. S. 115C-12(9)c; G. S. 115C-81(a);
Eff. February 1, 1976
Readopted Eff. February 3, 1978;
Amended Eff. April 1, 1983; June 8, 1979

APPENDIX C

COURSE REQUIREMENTS FOR HIGH SCHOOL GRADUATION

Course Units	Subjects
4	English
2	Mathematics
2	Social studies (1 unit in government and economics, 1 unit in United States History)
2	Science (1 unit in a life science or biology, 1 unit in one of the physical sciences)
1	Physical education and health
9	Determined by the local education agency (these may be undesignated electives or designated in the study areas of citizenship, communications, the arts, healthful living, mathematics, science, vocational education)

20 Total Course Units

APPENDIX D

NORTH CAROLINA STATE BOARD OF EDUCATION
NORTH CAROLINA SCHOLARS' PROGRAM

PLAN A

The North Carolina State Board of Education, believing that the success of our State and Nation depends on the full development of our youth and that some students should be encouraged to pursue a well-balanced but more vigorous high school program, institutes a North Carolina Scholars' Program.

Beginning with the 1983-84 school year, students satisfactorily completing requirements as identified by the State Board shall be named North Carolina Scholars and receive special recognition by the State Board.

Course Requirements

Program Area	Units
English	4
Mathematics - Algebra I, Geometry, Algebra II, one beyond Algebra II	4
Science - Biology, Chemistry, Physics (or in lieu of Physics, one other advanced science)	3
Social Studies - U. S. History, Government/Economics, World Cultures (Prior to 1987, U. S. History plus two elective units)	3
Foreign Languages - two levels of the same language	2
Health, P. E.	1
Vocational Education	1
Arts Education	1
Electives - minimum of three	3
	22

Additional Requirement

Students must have an overall four year grade average of B or its equivalent as determined by the local board of education. Equivalency may be determined by numerical grades or weighted grade point averages.

Recognition

1. Students meeting all requirements for a North Carolina Scholars' Program receive from the State Board of Education an appropriate seal of recognition to be affixed to the diploma.

2. Special recognition events should be held in the school and community to honor the students and their parents. These should include appropriate, special recognition at graduation exercises.

3. The State of North Carolina as well as business and industry should consider awarding other special recognitions to these students.

4. Colleges and universities should consider the North Carolina Scholars' achievement when making decisions concerning acceptance by their institutions.

5. An identification of potential candidates for this achievement should be made at the end of grade 11. Candidates would include those students who, after completing their selected senior courses with the designated grade average, would be eligible for recognition. This identification of candidates would reinforce the students' efforts to achieve the recognition and could also be included on their application forms and/or transcripts to colleges and universities.

NORTH CAROLINA STATE BOARD OF EDUCATION
NORTH CAROLINA SCHOLARS' PROGRAM

PLAN B

The North Carolina State Board of Education, believing that the success of our State and Nation depends on the full development of our youth and that some students should be encouraged the pursue a well-balanced but more vigorous high school program, institutes a North Carolina Scholars' Program with concentration in one or more program areas. In order to allow more flexibility in the program, consideration should be given to the optional sequence of courses listed below as an alternative to Plan A.

Beginning with the 1983-84 school year, students satisfactorily completing requirements as identified by the State Board shall be named North Carolina Scholars and receive special recognition by the State Board.

Course Requirements

Program Area	Units
English	4
Mathematics - Algebra I, Geometry, Algebra II	3
Science - Biology, Chemistry, Physics (or in lieu of Physics, one other advanced science)	3
Social Studies - U. S. History, Government/Economics, one additional social studies (Prior to 1987, U. S. History plus two elective units)	3
Foreign Languages - two levels of the same language	2
Health, P. E.	1
Vocational Education	1
Arts Education	1
Electives - minimum of four (concentrations may be selected as listed below)	4
	22

Concentrations

Mathematics - at least one additional advanced unit (balance - 3 electives)

Science - at least one additional advanced unit (balance - 3 electives)

Social Studies - at least one additional unit (balance - 3 electives)

Foreign Languages - at least two additional units of the same language (balance - 2 electives)

Health, P. E. - at least three additional units (balance - 1 elective)

Arts Education - as least three additional units (balance - 1 elective)

Vocational Education - at least three additional units (balance - 1 elective) Three of the minimum four units required for concentration in vocational education must be related to the same vocational objective. Additional units may be related to the same vocational objective or may be in other vocational areas.

Additional Requirement

Students must have an overall four year grade average of B or its equivalent as determined by the local board of education. Equivalency may be determined by numerical grades or weighted grade point averages.

Recognition

1. Students meeting all requirements for a North Carolina Scholars' Program will receive from the State Board of Education an appropriate seal of recognition to be affixed to the diploma.

2. Special recognition events should be held in the school and community to honor the students and their parents. These should include appropriate, special recognition at graduation exercises.

3. The State of North Carolina as well as business and industry should consider awarding other special recognitions to these students.

4. Colleges and universities should consider the North Carolina Scholars' achievement when making decisions concerning acceptance by their institutions.

5. An identification of potential candidates for this achievement should be made at the end of grade 11. Candidates would include those students who, after completing their selected senior courses with the designated grade average, would be eligible for recognition. This identification of candidates would reinforce the students' efforts to achieve the recognition and could also be included on their application forms and/or transcripts to colleges and universities.

APPENDIX E

NORTH CAROLINA COMPETENCY-BASED CURRICULUM

Sample Page

Grade Level: 6 Skills/Subject Area: Social Studies/Knowledge

Competency Goal: 1. The learner will know that ways of living change over time and how and why these changes occur (history).

OBJECTIVES	MEASURES
1.1 Identify changes which have occurred in Europe and/or the Soviet Union.	1.1.1 List changes which have occurred when given an appropriate series of photographs depicting changes in ways of living (dress, housing, work, transportation, and entertainment) in Europe and/or the Soviet Union.
	1.1.2 Draw a picture depicting what s/he believes to be the most significant change to have taken place in Europe or the Soviet Union; describe the picture and explain her/his reasoning aloud to the rest of the class.
1.2 Identify the effect of important changes which have occurred in Europe or the Soviet Union.	1.2.1 Place the examples in chronological order when given appropriately chosen examples of change in Europe or the Soviet Union.
	1.2.2 Match the changes to the resulting effects and identify the country in which each change/effect occurred when given a list of changes and a list of effects.

APPENDIX F

TESTING REQUIREMENTS

Annual Testing Program

The Annual Testing Program consists of standardized tests in reading, language arts, and mathematics administered at grades 1, 2, 3, 6, and 9.* Beginning with science and social studies tests, other skills and subject areas may be added to this program in the future.

Promotion Testing

Phase 1: A student in grades 3, 6, or 8 who scores at or above the 25th percentile (total battery) in the Annual Testing Program meets the State standard for promotion and must them meet local requirements. A student who scores at the 24th percentile or below enters phase two.**

Phase 2: In phase two, a student is tested for mastery of competencies on a test developed by the State Board of Education. Students who demonstrate mastery meet State requirements and then must meet local requirements. Students who do not demonstrate mastery must be retained or attend a State-supported summer remediation program. Students attending the summer program will be assessed to determine whether they have mastered the minimum standards. Those who demonstrate mastery will have met State standards and may be promoted if they have also met local requirements. Those who have not demonstrated mastery will be retained.

End of Course Testing

End of Course Testing is conducted at the secondary level in Algebra I and biology. It is anticipated that up to 20 other courses may be added to this program by the year 1990.

Minimum Competency Testing

Students in grade 11*** are tested for mastery of minimum competencies in the areas of reading and mathematics. In order to graduate from high school, students must receive a passing score on all areas of the Minimum Competency Test.

* It is anticipated that testing will be moved from grade 9 to grade 8.

** The State standard will not apply to students already retained in the same grade span or certified as trainable mentally handicapped, educable mentally handicapped, or severely/profoundly mentally handicapped. Students otherwise handicapped may also be exempted according to standards and procedures developed by the State Board of Education.

*** It is anticipated that testing will be moved from grade 11 to grade 10.

APPENDIX G

TEXTBOOK ADOPTION PROCESS IN NORTH CAROLINA*

The first step in the adoption of basic textbooks is the appointment of a Textbook Commission as set forth in G.S. 115C-87. The law provides that the Textbook Commission shall be composed of fourteen members to be appointed by the Governor upon the recommendation of the State Superintendent of Public Instruction. The law further prescribes that seven of the members shall be outstanding teachers or principals in the elementary school grades, that five shall be outstanding teachers or principals in the high school grades, and that two shall be lay members, one of which shall be the parent of an elementary school student, and one of which shall be the parent of a high school student, with the added proviso that one of the members may be a county or city superintendent.

The State Board of Education authorizes textbook adoptions as set forth in G.S. 115C-85 and 86. The State Superintendent notifies members of the Textbook Commission that there is to be an adoption in a given subject area or areas. The State Superintendent also notifies all registered textbook publishers of the adoption call and invites them to submit any materials they would like to have considered.

Members of the Textbook Commission evaluate all textbooks offered for adoption.

All books submitted are viewed and evaluated within a frame of reference determined by the State course of study. Pursuant to a call and prior to reviewing materials, members of the Textbook Commission and the professional staff of the Department of Public Instruction engage in a thorough overview of the program of studies and develop a concise statement of philosophy, goals, and objectives for the course or subject area under consideration. This statement also reflects any changes or innovations in the program and takes into account current trends and emphases stemming from sound, authoritative research, and experimentation.

In the review and evaluation process each Commission member secures the help of as many advisers as he or she may choose. The number will vary but the usual practice has been for each member to select eight to twelve such advisers. Special expertise in the subject area under consideration is the main criterion in choosing advisers. Each Commission member tries to secure a representative group including classroom teachers, college personnel, supervisory and administrative personnel, and possibly laymen and students.

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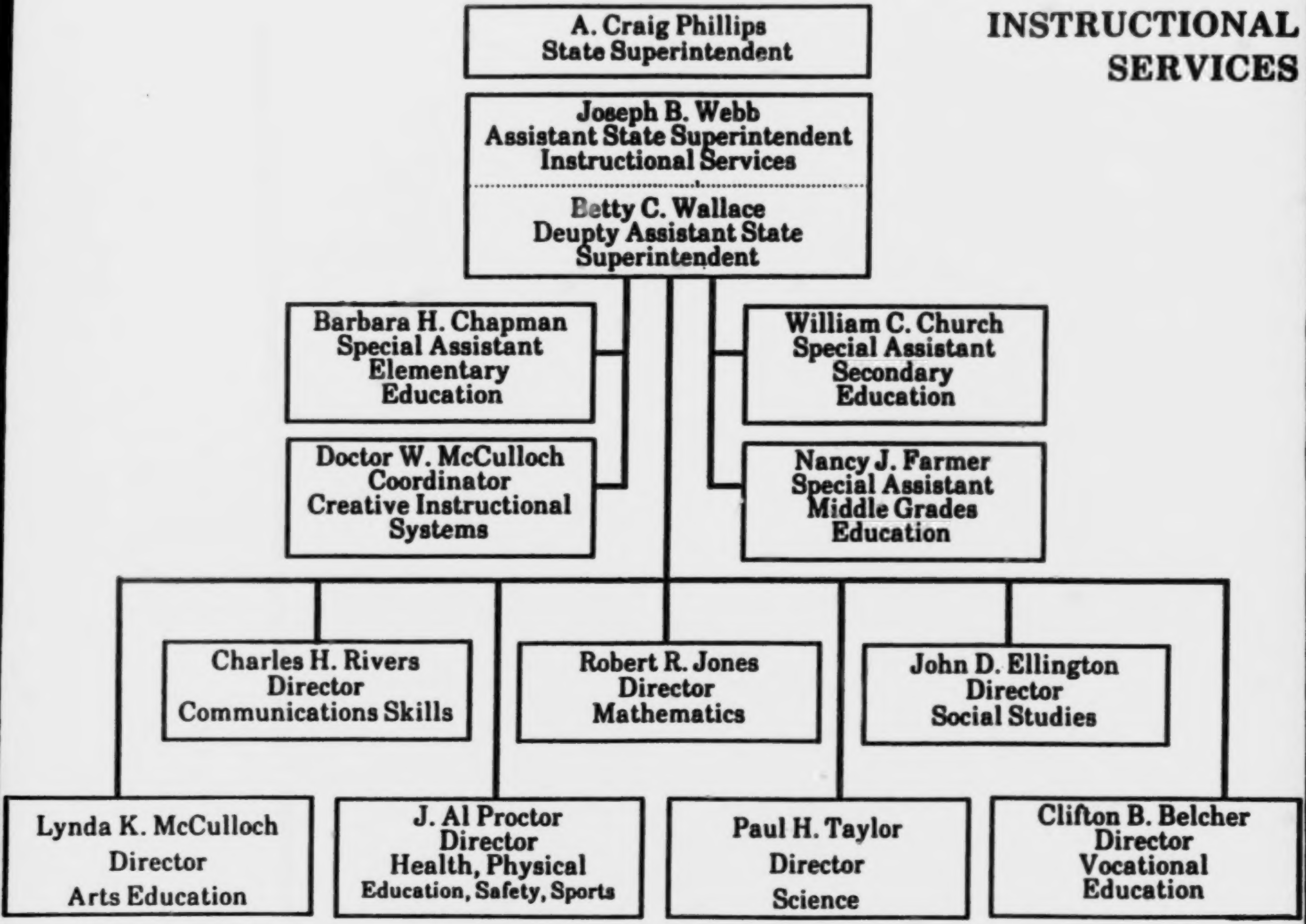
*From North Carolina State Adopted Basic Textbooks 1984-85. Raleigh, NC: Division of Textbooks, Controller's Office, Department of Public Education, 1984.

When the review process is completed, each Commission member files a written evaluation of every book submitted. These evaluation reports must be signed by the member making the report and the Commission Chairman delivers them to the State Superintendent who is also Secretary to the State Board of Education. At the next meeting of the Board of Education, after evaluation reports are filed, the members of the Textbook Commission meet with the Board for joint review and consideration of the reports. In the evaluation of basic textbooks the members of the Commission do not concern themselves in any way with the price of the book or its physical features.

Following the joint session of the Textbook Commission and the State Board to consider the findings and recommendations of the Commission, the State Board officially calls for sealed bids on those books which the Textbook Commission found to be most appropriate for implementing the desired program of instruction in North Carolina schools. Bids are customarily received on five to eight books. At the next meeting or at another designated regular meeting of the Board, the bids are opened and contracts awarded. Where significant differences in the appropriateness of books were noted by the Textbook Commission, the State Board traditionally has placed priority on securing the best materials available.

INSTRUCTIONAL SERVICES



A. Craig Phillips
State Superintendent

Joseph B. Webb
Assistant State Superintendent
Instructional Services

Betty C. Wallace
Deupty Assistant State
Superintendent

Barbara H. Chapman
Special Assistant
Elementary
Education

Doctor W. McCulloch
Coordinator
Creative Instructional
Systems

William C. Church
Special Assistant
Secondary
Education

Nancy J. Farmer
Special Assistant
Middle Grades
Education

Charles H. Rivers
Director
Communications Skills

Robert R. Jones
Director
Mathematics

John D. Ellington
Director
Social Studies

Lynda K. McCulloch
Director
Arts Education

J. Al Proctor
Director
Health, Physical
Education, Safety, Sports

Paul H. Taylor
Director
Science

Clifton B. Belcher
Director
Vocational
Education

APPENDIX I

Suggestions for Additions to or Revisions of the

North Carolina Competency-Based Curriculum

1. Suggestion for: A. addition ☐ B. revision ☐ (please check one)

2. Skills/Subject Area: ______________________________
(e.g., Mathematics, Social Studies, Science)

3. Page Number: ______

4. Addition/Revision to: (please check & give number)

Introduction ☐
Competency Goal ☐ Number: ______
Objective ☐ Number: ______
Measure ☐ Number: ______

5. SUGGESTION: ______________________________

6. Name of person submitting suggestion: ______________
Place of employment: ______________
Employed as: ______________
Address: ______________

Please return this form to: Joseph B. Webb
Assistant State Superintendent
for Instructional Services
Education Building, Raleigh, NC 27611